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textile bulletin

MAY • 1957

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PA NBP

JACOBS CASTEEL DOBBY CORDS

Give You These Great Improvements

Open End Cast right to wire core. Will not pull out. Eliminates "S" hooks. Also available with closed eye.

Nylon Braid Gives dobby cord a wearing surface that outlasts cotton by far. Available in No. 8 (8/32") and No. 7 (7/32") diameters.

Turnbuckle That Really Locks. Simplifies harness frame adjustment.

Jacobs Casteel and Wire-Reinforced Dobby Cords are also available with cotton-braided wearing surface, in No. 8 and No. 7 diameters.

BOOSTS EFFICIENCY

CUTS COSTS

The Bullard Clark Company

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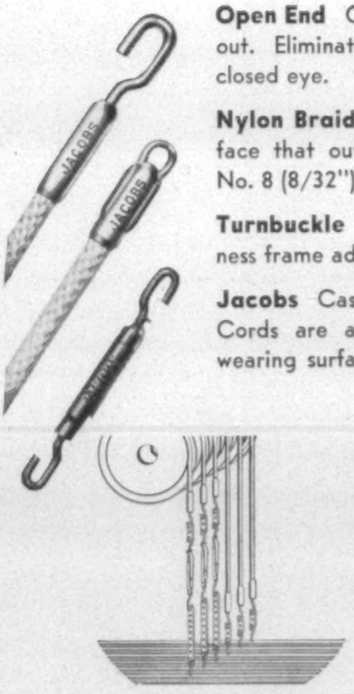
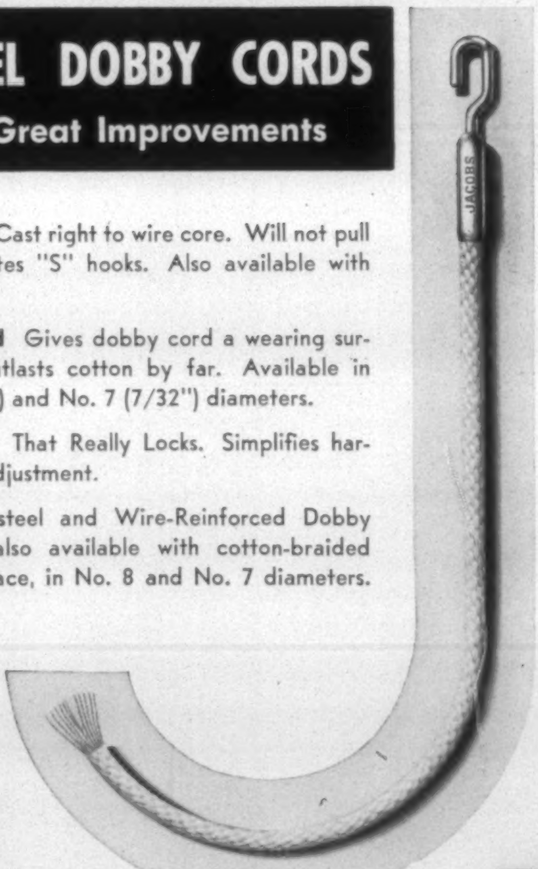
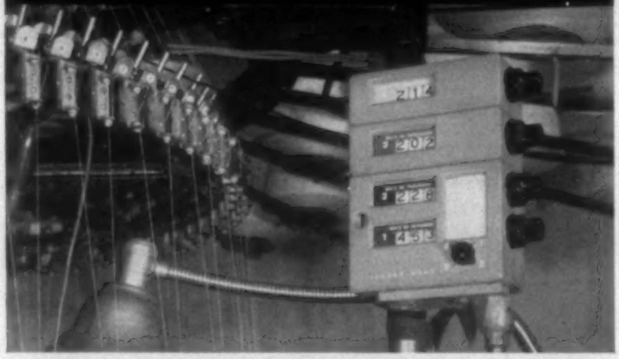
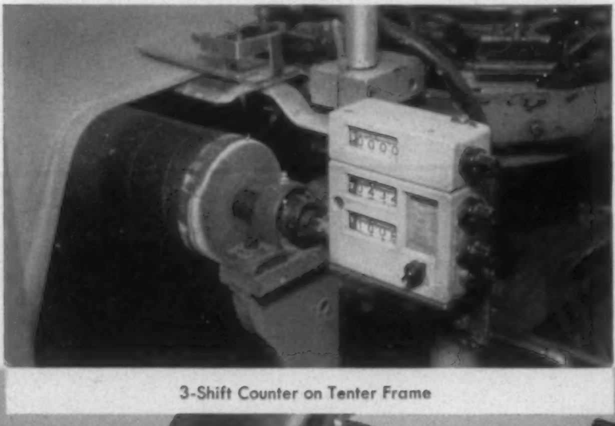




Modern Knitting Mill uses Veeder-Root COST-COUNTROL



3-Shift Revolution Counter on Knitting Machine at Lawrence Mfg. Co.



3-Shift Counter on Tenter Frame

Double-Wheel Worm-Driven Counter on Inspection Table

to Speed Production . . . Save Time . . . Eliminate Errors

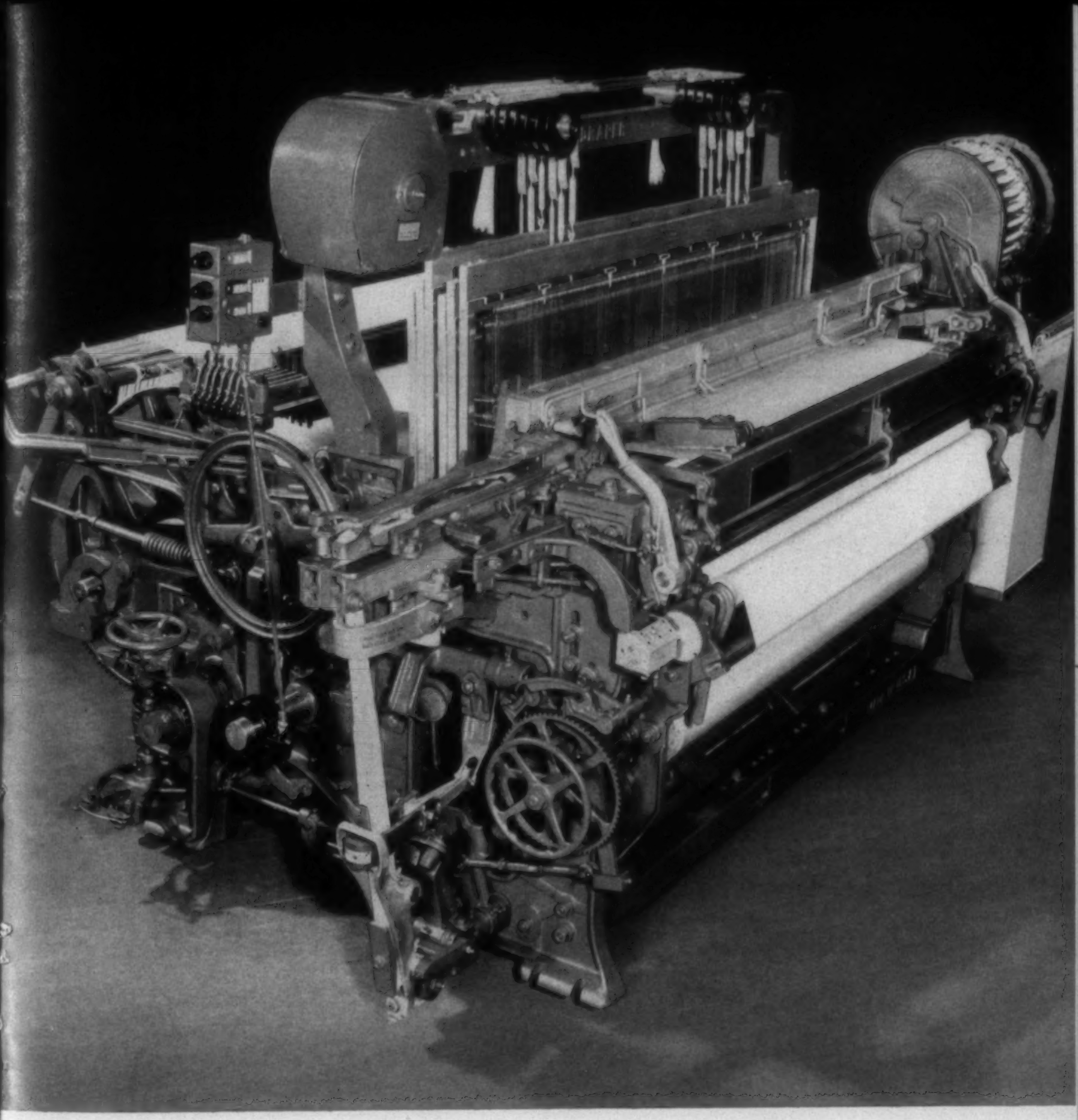
You'll see 2-3-4 Convertible Revolution Counters on every knitting machine in the high-production mill of the Lawrence Manufacturing Co., Lowell, Mass., division of Ames Textile Corporation.

On the basis of "facts-in-figures" supplied by these Veeder-Root Counters, workers are paid "by the numbers" which simplifies paperwork, provides incentives, and shows workers their exact earning status at all times.

That's why Veeder-Root Cost-*Count*rol is an important factor in the production of Lawrence's top-quality knit goods. Find out the advantages *your* mill can gain by using the same simple basic system. A Veeder-Root engineer will be glad to show you how . . . any time you say. Write:

Veeder-Root
INCORPORATED
'The Name that Counts'

Hartford, Conn.
Greenville,
New York • Lo
San Francisco •
Offices and Ag
Principal Ci



This loom gives you all the competitive advantages

Long range flexibility, practical and economical operation, higher production, increased efficiency and a new low in maintenance cost are major benefits offered by the new Draper X-2.

The changing fashions in cotton and synthetics create a need for a loom which can be converted on short notice to weave a wide variety of fabrics.

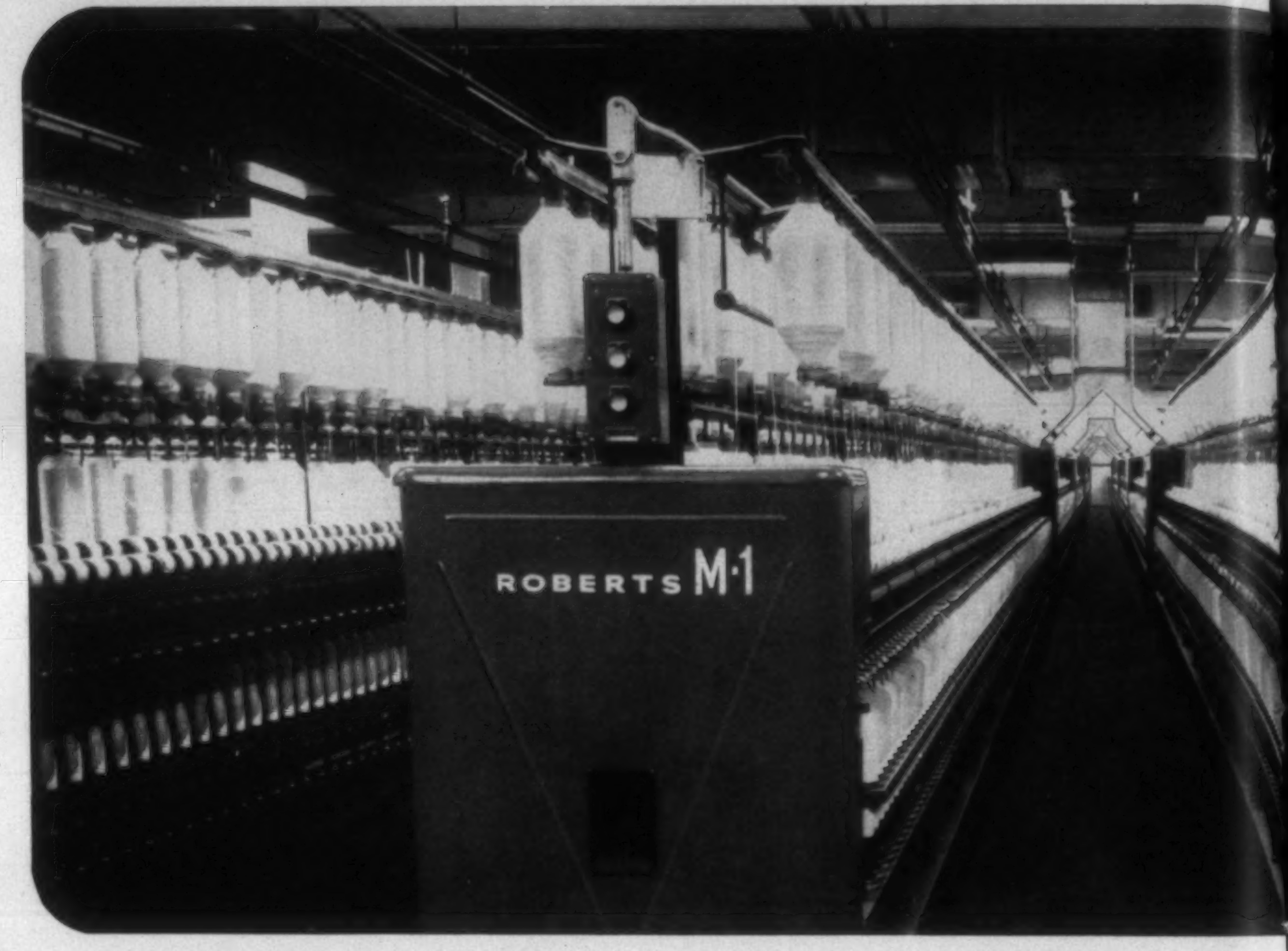
The X-2 with its ability to weave cottons or synthetics equally well, answers this conversion problem.

The combined advantages of the Draper X-2 mean . . . higher mill profits.

D

DRAPER
CORPORATION

Hopedale, Mass. *Atlanta, Ga.* *Greensboro, N. C.* *Spartanburg, S. C.*



ROBERTS SPINNING

Today's standard for production, yarn quality and investment

Roberts Spinning is setting today's standard for comparison in high drafts, package sizes, roving bobbin sizes, front roll speeds, ends up, yarn break factor—and at the lowest investment cost per spindle.

TRIED AND PROVEN. The Roberts M-1 Spinning Frame is simple and straightforward, free from radical innovations or gadgets. Its design has already been tried and proven in many successful applications. It embodies all the ball bearing features most wanted in a modern spinning frame, giving highest production and lowest maintenance.

ROBERTS DRAFTING. Roberts Double-Apron Drafting produces highest break factors, best yarn evenness and lowest ends down in a range of drafts from 10 to 60, for yarn numbers from 2's to 100's, in cotton, synthetics with staples up to 3 inches long, or blends.

LARGE PACKAGE FLEXIBILITY. One basic model of the Roberts M-1 Spinning Frame is adapted to run warp bobbins with lengths from 10 inches to 12 inches as well as filling quills. Standard gauges from 3 inches to 4½ inches can be arranged to employ the maximum desirable ring size suitable for the yarn number and twist constant.

RUGGEDNESS WITH SIMPLICITY. The frame chassis is of rugged construction. The working motions use ball bearings for every turning and oscillating motion where practical. The all-ball-bearing head design is outstanding in its simplicity and flexibility. All gears in the head are hardened and have one pitch, one width, one bore and one keyway, making them completely interchangeable. Greased-for-life bearings are used in the head and all plain bearings and studs are eliminated. Draft and lay constants are adjusted simply over the complete range of yarn numbers.

STANDARD FEATURES. Standard equipment includes Roberts Ball Bearing Spindles, Roberts built-in UnitVac Suction Cleaning. Roberts AeroCreels are available in every desired package size, single or double.

Part of a spinning room in a mill with over 100 Roberts 25-inch Spinning Frames.

ROBERTS SPINNING AVAILABLE IN 3 FORMS PROVIDES MODERNIZATION AT LOWEST COST

The cost-cutting, performance, and quality features of Roberts Spinning can be obtained through changeovers to the mills' existing spinning frames, or through rebuilt frames supplied by Roberts, as well as Roberts M-1 Spinning Frames. Roberts Proposals for Spinning Modernization provide comparison on these 3 methods.

CHANGEOVERS to the mills' existing machinery can include drafting systems, spindles, creels, suction cleaning, tape drive, gearing, or any combination of these to provide the maximum return for minimum expenditures. Performance equal to new can be built into mills' existing machinery if desired in every manner and form.

ROBERTS MODEL 55-R REBUILT FRAMES provide complete new spinning performance making use only of non-functional support members of older frames, thus affecting a substantial savings and taking advantage of the all-new spinning performance and features identical to all-new frames.

ROBERTS M-1 SPINNING FRAMES are excitingly new from the ground up, with all ball bearing features. They are available in 39 inch, 36 inch, and the space-saving 25 inch widths.

ROBERTS COMPANY

SANFORD, NORTH CAROLINA

ROBERTS SPINNING NEWS

TOP ROLL SUSPENSION USES BALL BEARINGS IN ALL THREE LINES

The Roberts Ball Bearing Top Roll Suspension System uses double-row ball bearings in front, middle and back lines and incorporates many other important design advantages.

Cots have ½" hole diameter, revolve together making lap removal simpler, and are buffed on standard equipment, without attachments. Full length revolving clearers are used.

Front and back rolls are interchangeable making sequence buffing possible.

The double-row bearing raceways are ground directly into ½" shafts. Bearings are grease-packed for life and a 2-piece labyrinth seal protects them from lint entrance and roll picker damage.

The system has controlled self-alignment. Conventional deadweighting or new spring weighting is optional.

An alternate arrangement also available employs a ball bearing top roll and special suspension on the front line only with Roberts Cap Bars and solid top rolls on middle and back top rolls.

Roberts also continues to offer its No-Oil Cap Bar and Saddle system for all three lines, now installed in more than 2½ million spindles.

ROBERTS M-1 SPINNING FRAMES MADE IN THREE WIDTHS

Where it is desirable to match frame widths already in the mill, Roberts makes and incorporates all of its design features of its new frames in standard 36 and 39 inch widths. All the ball bearing features and details are built into these wider frames.

The Roberts M-1 25 inch wide Spinning Frame permits 5 frames instead of 4 in a 25 foot mill bay, retaining 30-inch aisles and increasing yarn production 25% in the same place.

Creel designs have been arranged for the frames to handle 12 by 7 roving packages on as low as a 3-inch gauge frame. 10 by 5 double creels are designed for 3½ inch and larger gauges. In all cases, widths and heights of creel are not excessive with consideration being given for ease of creeling for the operators.

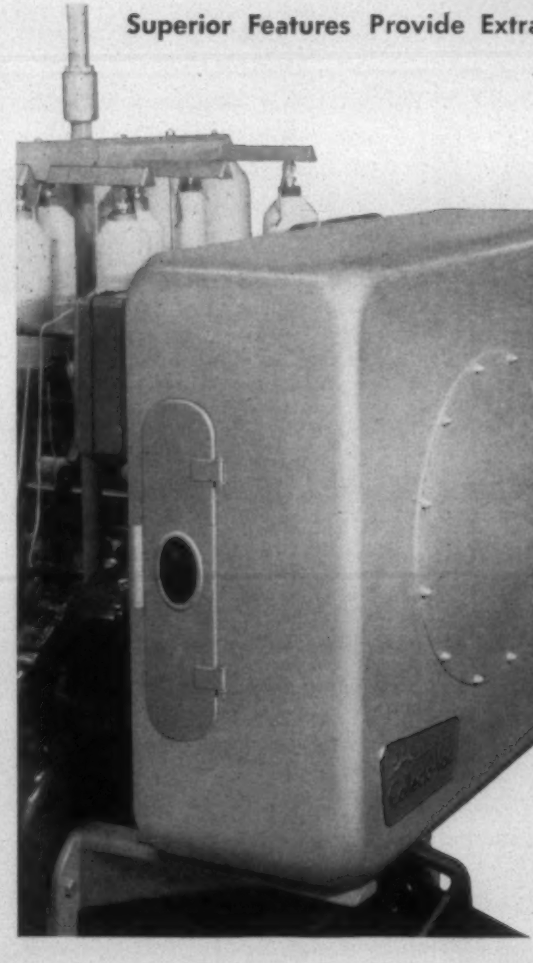
ROBERTS "TURNKEY" ERECTION SERVICE

Roberts "Turnkey" Erection Service is available in all 3 modernization arrangements: buying complete new spinning frames, buying modernized frames, or changing over the frames on your floor. In each arrangement, Roberts is entirely responsible for installation and performance.

A New
Product's
Dynamic
Record

Why The New Bahnson Collecto-Vac Was Purchased For 1,364,696 Spindles In Less Than Two Years

Superior Features Provide Extra Service For Collecting Broken Ends, Flying Lint

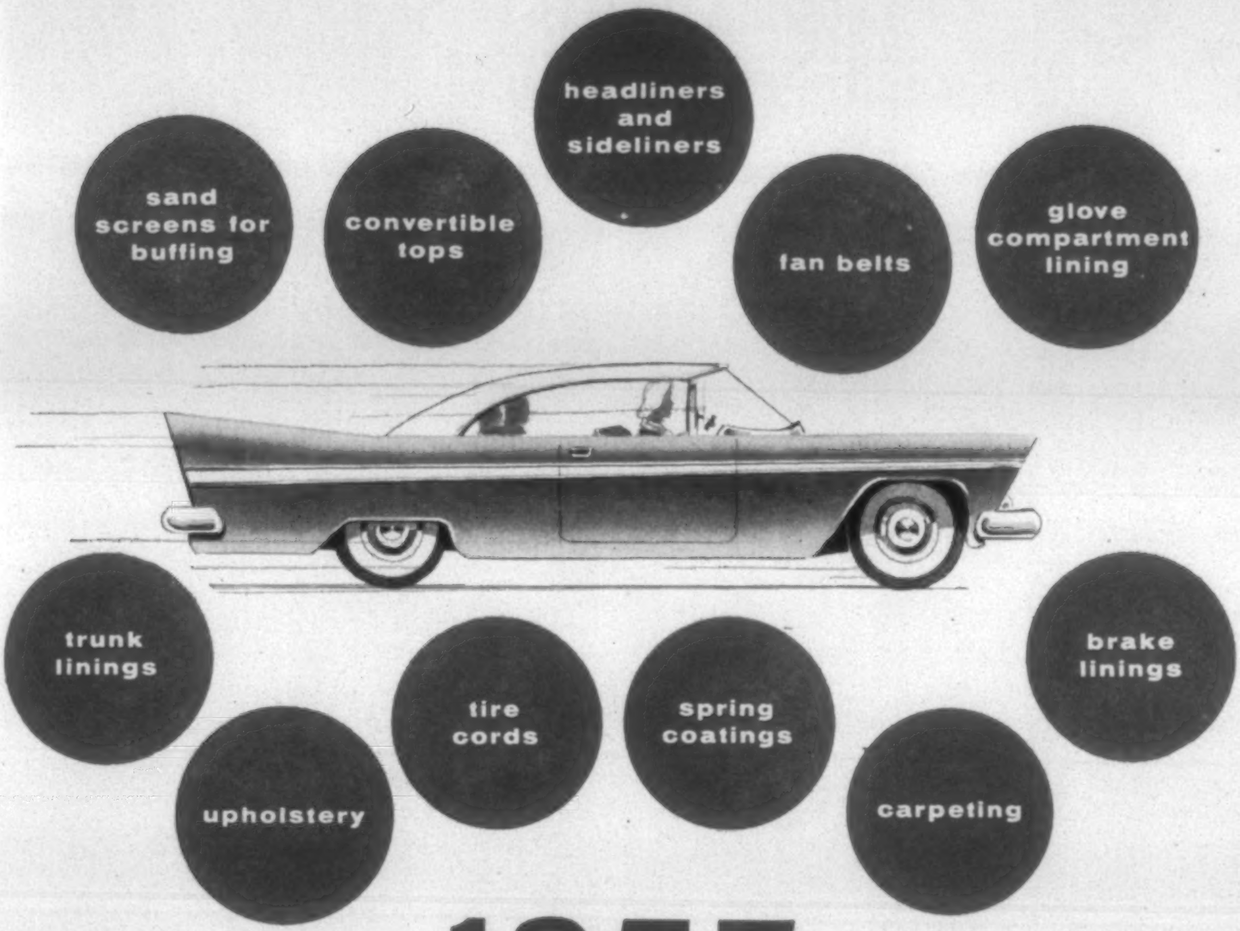


- **ANODIZED ALUMINUM FLUTES**
  No warping, cracking, or static build-up
- **SCROLL TYPE FAN**
  High velocity downward air discharge disperses motor alley heat or can be used to clean beneath frame; also facilitates addition of Central Heat Removal System.
- **CONVENIENT ACCESS FOR MAINTENANCE**
  No need to remove frame switches from unit to reach fan and motor.
- **TOP QUALITY CONSTRUCTION**
  Rugged steel collection box smoothly finished in baked enamel. Anodized aluminum flutes offered in choice of colors. Double capacity unit for serving two frames.
- **CENTRAL HEAT REMOVAL SYSTEM**
  Can be added to existing Collecto-Vac units without conversion. Removes heat from collection unit, frame motor, motor alley.
  Bahnson CHR System obsoletes earlier concepts of central air handling.

Get detailed information on the Bahnson Collecto-Vac and Central Heat Removal System. Write us today!

Bahnson
COMPANY
WINSTON-SALEM, N. C.

AIR CONDITIONING • HUMIDIFICATION
VACUUM COLLECTION • CLEANING • CREELS



1957

hits the road with RAYON!

Rayon proves its versatility in your automobile . . . with eleven different jobs done well!

Outstanding is its performance in tires. It is the only fiber that actually grows stronger as road friction raises tire temperatures. Through forward-thinking industry research, the tensile strength of rayon today is 45% greater, and flex strength 60% greater, than they were only five years ago!

No wonder that better than 99 of every 100 new cars coming off the assembly lines in 1957 roll on rayon tire cords!

As major suppliers of carbon bisulfide and caustic soda, we have long served the rayon industry. With confidence in the future of rayon, we have recently completely modernized our alkali plant at South Charleston, W. Va. and are this year doubling our carbon bisulfide capacity.

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FOOD MACHINERY AND CHEMICAL CORPORATION

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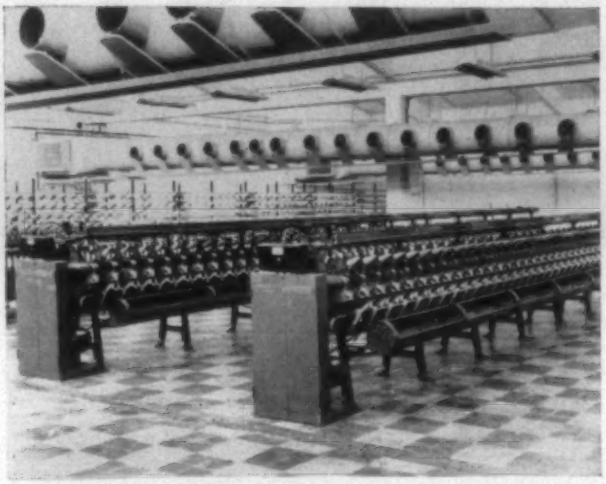
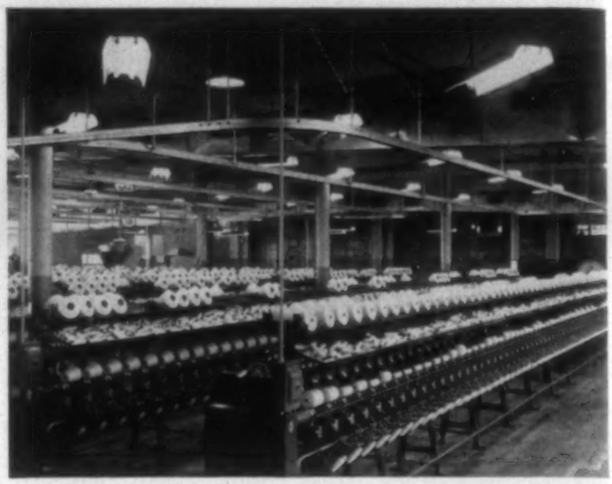
BECCO® peroxygen chemicals • FAIRFIELD® pesticide compounds • FMC® organic chemicals • NIAGARA® insecticides, fungicides and industrial sulphur • OHIO-APEX® plasticizers and resins • WESTVACO® alkalis, solvents, phosphates, barium and magnesium chemicals

Leesona ROTO-CONER®
—the winding way around the world

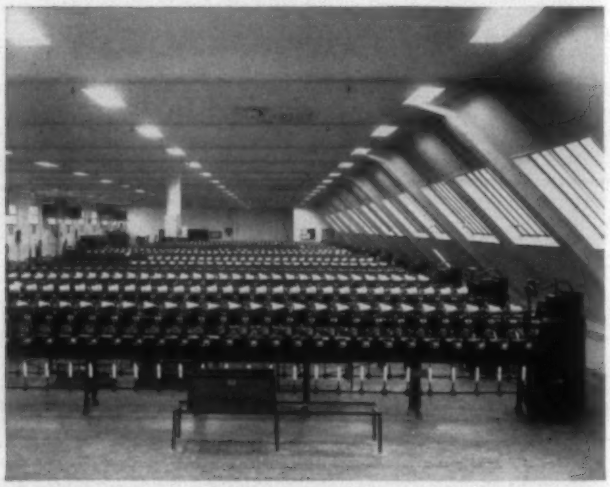


URUGUAY — Roto-Coners set up to wind onto paper cones. Machines are equipped with round bobbin boxes.



U. S. A. — Roto-Coners winding parallel tubes on one side, cones on the other.

GREAT BRITAIN — Roto-Coners winding open-wind knitting cones.



FRANCE — Roto-Coners coning 100s — 120s cotton yarn.

Every textile manufacturing country in the world uses Leesona Roto-Coners in quantity.

These quiet, trouble-free drum winders produce every type of open-wind package. They wind onto paper tubes and cones for shipment or knitting . . . onto cork-covered, wood cones for warper creels . . . onto perforated tubes and springs for dyeing . . . onto wood tubes and cones for twisting.

Around the world they wind cottons . . . spun synthetic staples . . . wools . . . worsteds . . . linens . . . blends.

The exclusive *Rotary Traverse* on these machines eliminates all moving parts connected with reciprocating guides — permits high speed, reduces maintenance, and assures uniform packages and top quality yarn.

For facts and figures on why these versatile, dependable machines are popular around the world, write for the illustrated Leesona Roto-Coner booklet.

23.6.14

UNIVERSAL WINDING COMPANY

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Sales Offices: Boston • Philadelphia • Utica • Charlotte • Atlanta • Los Angeles
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Agents in every principal textile center throughout the world.

this Year, as usual...

the high-fashion, high-profit fabrics

are woven on C&K AUTOMATIC BOX LOOMS

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CROMPTON & KNOWLES Corporation

MANUFACTURER OF THE WORLD'S LONGEST LINE OF AUTOMATIC BOX LOOMS

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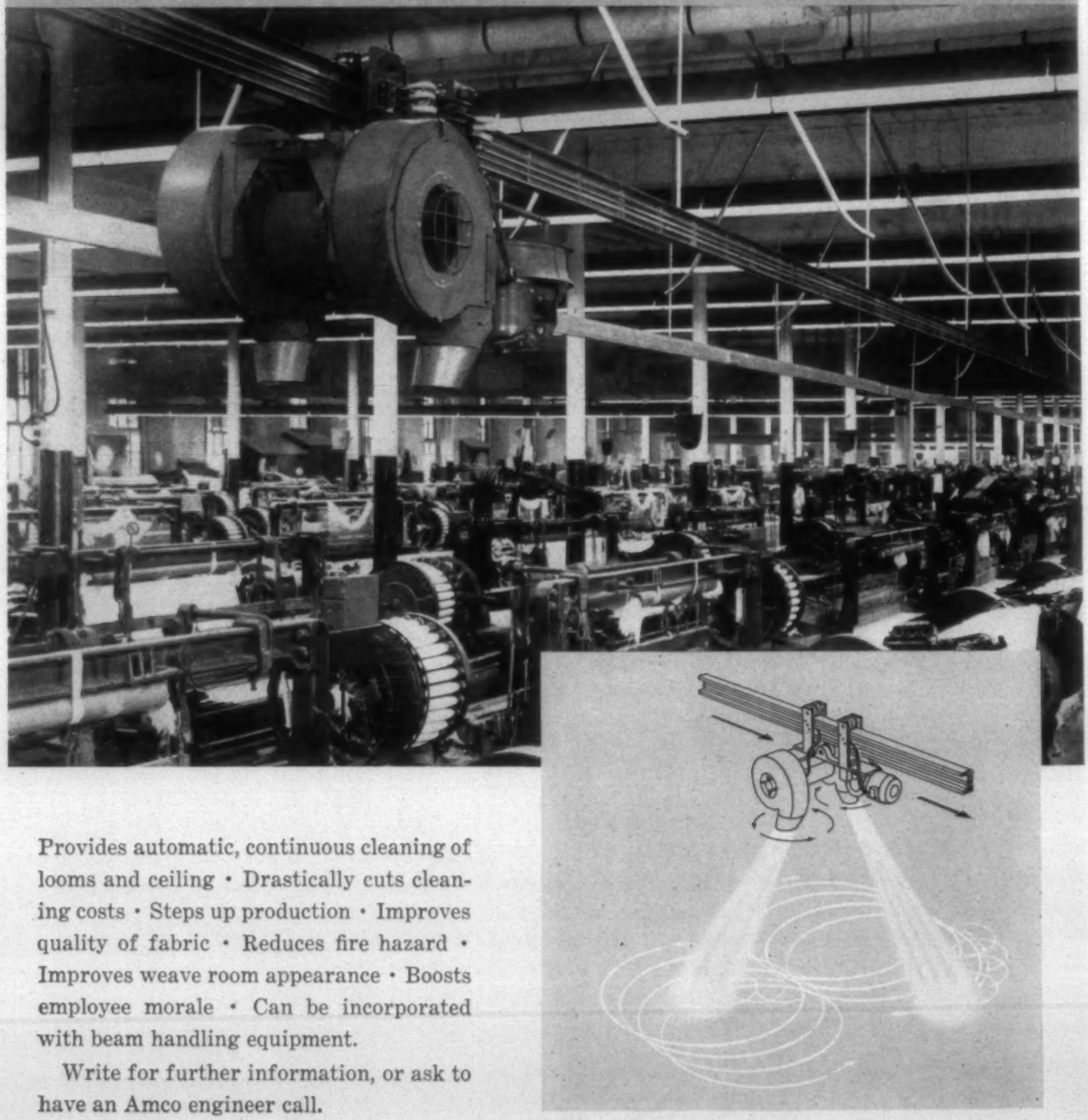
Amco Introduces it's New

Heliclone Loom Cleaner



Provides automatic, continuous cleaning of looms and ceiling • Drastically cuts cleaning costs • Steps up production • Improves quality of fabric • Reduces fire hazard • Improves weave room appearance • Boosts employee morale • Can be incorporated with beam handling equipment.

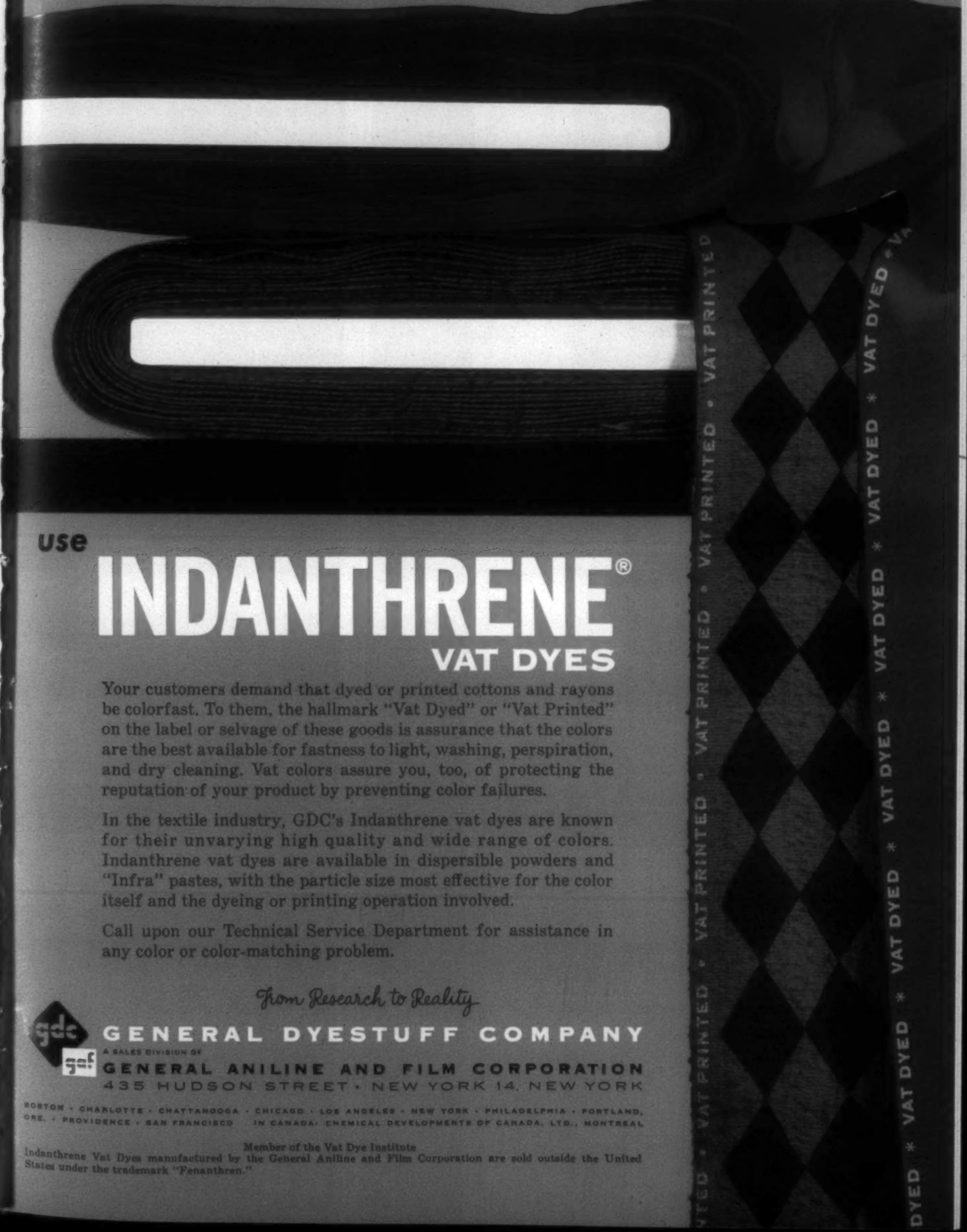
Write for further information, or ask to have an Amco engineer call.

Swiftly whirling outlet nozzles, driven by the air stream, direct the air jets at an acute angle in overlapping, circular paths. The result is a rapid series of high-velocity bursts of air over loom and warp surfaces for complete cleaning action.

AMERICAN MOISTENING COMPANY ***Air Conditioning Systems and Textile Mill Equipment***

Executive Offices: Cleveland, N. C. Branches in Atlanta, Boston, Camden, Providence, Toronto

to please "colorfast-conscious" customers



use

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VAT DYES

Your customers demand that dyed or printed cottons and rayons be colorfast. To them, the hallmark "Vat Dyed" or "Vat Printed" on the label or selvage of these goods is assurance that the colors are the best available for fastness to light, washing, perspiration, and dry cleaning. Vat colors assure you, too, of protecting the reputation of your product by preventing color failures.

In the textile industry, GDC's Indanthrene vat dyes are known for their unvarying high quality and wide range of colors. Indanthrene vat dyes are available in dispersible powders and "Infra" pastes, with the particle size most effective for the color itself and the dyeing or printing operation involved.

Call upon our Technical Service Department for assistance in any color or color-matching problem.

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Member of the Vat Dye Institute

Indanthrene Vat Dyes manufactured by the General Aniline and Film Corporation are sold outside the United States under the trademark "Fenanthren."

TESTED and PROVED

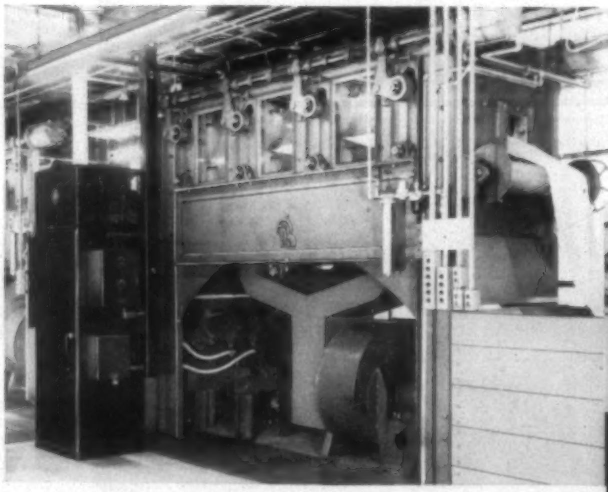
The Fleet Line

CONTINUOUS CRUSHERS

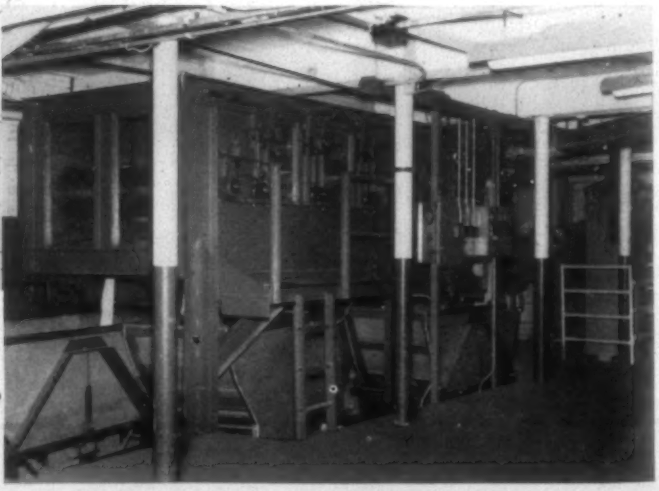
Protect Your Profit Figures

In many plants for many years, R & L Continuous Crushers have set the standard for reliable operation—and *only* R & L engineering has developed the know-how to offer improvements on their superb performance.

While these machines deliver cloth at the production rate of the carbonizing range, the actual crushing speed in the machine is better than 200 yards per minute. A high efficiency is created through this increased speed and the reversing action which alternately crushes with manifold pressure nips, then whips vigorously to get rid of dust. Performance is automatic — needs practically no attention because balanced scrays stop the machine if cloth supply gets out of balance with capacity, thus safe-guarding your material.



MODEL CCT4 is a dual unit automatic continuous crusher of 2 units in tandem.



MODEL CCNB4 is a single unit automatic continuous crusher of same capacity as our dual unit.

These Continuous Crushers make possible one single continuous operation of acid soaking, drying, baking, and crushing. Continuous neutralizing machine is available to run in tandem with them if desired.

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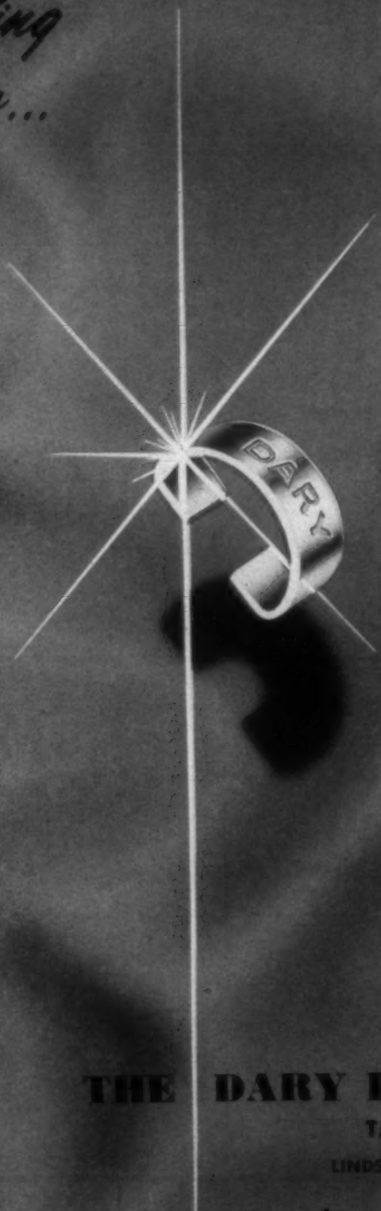

THE DARY RING TRAVELER CO.

TAUNTON, MASSACHUSETTS

LINDSEY I. PHILLIPS, Treasurer, Taunton, Mass.

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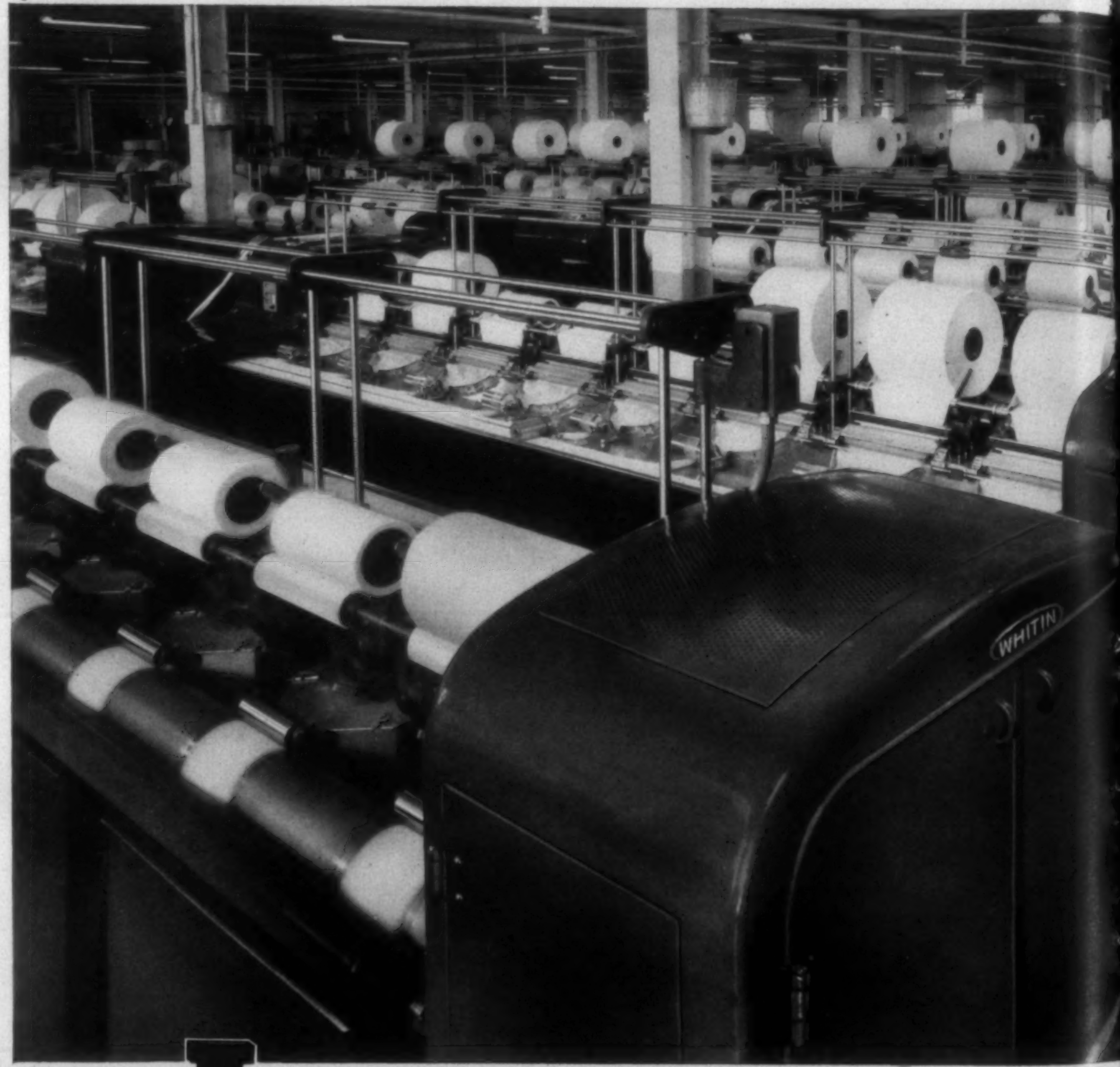
Now.. Whitin presents the



SUPER J

Higher production rates up to 50 lbs./hr. (at 100% efficiency) and greater nep removal are performance features of the new Whitin Super J Comber. Its constructional features have been thoroughly proven in mills all over the world. The comber operates at a constant 150 nips per minute, 20% faster than other combers, producing very even, high quality sliver, with extremely accurate waste removal.

SUPER J COMBER

Featuring...

- **Higher Production**
- **Greater Nep Removal**
- **Unsurpassed Sliver Quality**
- **Lowest Maintenance and Operating Costs**

• CONSTRUCTION FEATURES •

- 8 heads, single side
- Extremely precise construction
- 50% fewer parts than competitive combers
- New spring cushion plate, heavier detaching rolls and weighting, signal lights, lap run-out and knock-off motions
- Unique, simple detaching motion
- Bi-Coil or single sliver
- Unit assemblies

• OPERATING FEATURES •

- Simple to operate
- Efficiency up to 97%
- Low production cost/lb.
- Maintains settings between annual overhauls
- Simple setting, timing and waste control adjustments
- All heads set identically
- Total repair and maintenance costs 1/10th or less than competitive combers

For complete information ask your Whitin representative or write direct to us.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

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ILAN

AND THEN WE REALLY PUT IT THROUGH THE MILL

...to assure top-spinning performance!

Acrilan's toughest customer is right here in the plant.

His standards are the most exacting in the industry. To earn his approval, every pound of Acrilan must have the right answers to questions like these:

How well does it lap? Card? Process on roving and spinning frames? What maximum percentage of fly can be expected? Is the web uniform? What about the quality of the card sliver?

The "customer" is our own pilot mill...operating a complete fiber processing system...at work 24 hours a day, 7 days a week...checking Acrilan performance under the conditions existing in your mill.

This, it should be noted, is *one* stage in a comprehensive philosophy and system of quality control, guiding Acrilan production from initial polymer to final staple cutting or tow packaging. A philosophy that believes product improvement depends on knowing that still more improvement can be made. A system based on control specifications, tolerances and inspection standards previously held unattainable for the newer, man-made fibers.

The Acrilan acrylic fiber produced to these specifications is what we "put through the mill" for equally critical testing in actual performance. The gains—in terms of *your* problems—can be stated most concretely:

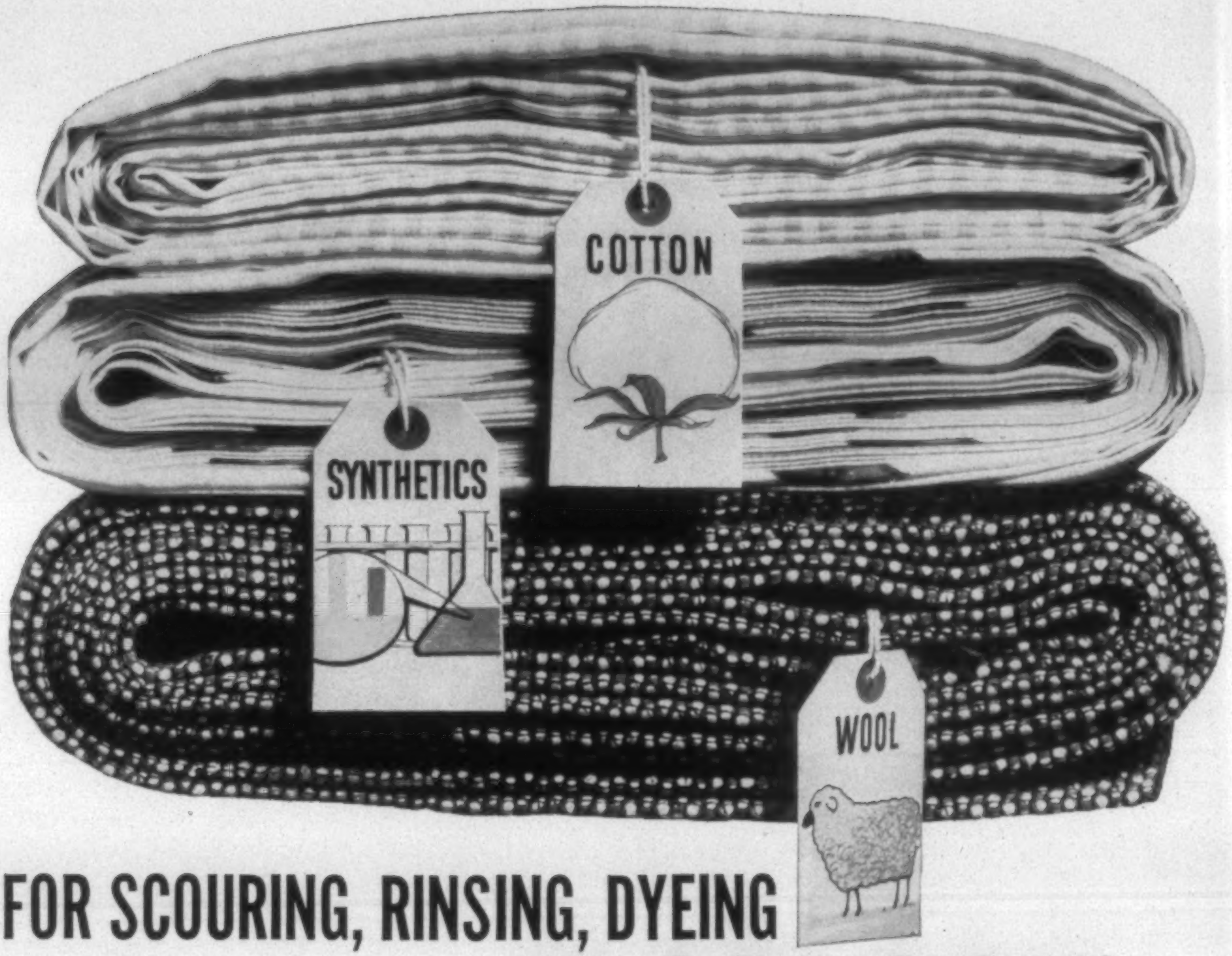
- FAR BETTER FINISH CONTROL...*with the direct result of improved carding and spinning uniformity.*
- IMPROVED HIGH BULK PROCESSING ...*for greater assurance of fabric shrinkage control.*
- FLY REDUCTION *so significant it is raising yarn quality, reducing mill costs and waste.*
- UNIFORM DYEABILITY... *no change in dye merges for over two years now.*
- STAPLE LENGTH UNIFORMITY *superior to the most demanding needs in the textile field.*

Obviously, these are meaningful advances... crucial to efficient, economical mill operation. They demonstrate why mill after mill for the last two years has cited Acrilan as its smoothest-running, top-spinning fiber.

ACRILAN

ACRILAN ®

THE CHEMSTRAND CORPORATION • GENERAL SALES OFFICES: 350 FIFTH AVE., NEW YORK 1, N. Y. • DISTRICT SALES OFFICES: 3½ Overwood Road, Akron, Ohio; 4 Pearl Street, Dedham, Mass.; 222 South Church Street, Charlotte, N. C. • PLANTS: ACRILAN* ACRYLIC FIBER—Decatur, Ala.; CHEMSTRAND* NYLON—Pensacola, Fla.



FOR SCOURING, RINSING, DYEING USE CALGON®

Calgon has many uses in the Textile industry—speeding up many operations, making others more effective. Listed below are a few of the ways in which Calgon can help.

Special problems demand special answers. Here is where the Calgon engineer's extensive experience with water problems of all kinds can help. A letter or phone call will put this experience at your service.

CALGON CONDITIONS WATER—Softens more water for less money. Calgon not only softens water until it is as soft as distilled water, but acts as a solvent for lime soap as well.

CALGON IN SCOURING OR RINSE BATHS—No more lime soap curds. Calgon supplements the detergent action of soaps and synthetic detergents. Calgon corrects the only fault of soap—that of precipitation in hard water.

CALGON IN THE DYEBATH gets brighter, more uniform colors and reduces scum. Calgon exerts a dispersive and solubilizing action on many dyestuffs, and acts as a leveling and penetrating agent. You get more vivid and more even colors.

CALGON DISPERSES PIGMENTS for more uniform finishes. Calgon is an excellent dispersing agent for clay, calcium carbonate, titanium dioxide and other pigments. Calgon is particularly effective for uniform finishing of rayon and other synthetic fabrics.

PIGMENTED RAYON—Calgon aids dye penetration of dyes in pigmented rayon, giving deeper and brighter shades. Calgon stops scum formation, assuring more even colors.

THRESHOLD TREATMENT FOR CORROSION CONTROL* eliminates iron, reduces off shades and lowers chemical cost of bleaching. Calgon prevents the contamination of process water from iron corrosion products. Using very small quantities of Calgon, Threshold Treatment is the most economical method for elimination of iron contamination.

Write for your FREE copy of the new edition of "Calgon Data for the Textile Chemist."

*Fully licensed for this use under U.S. Patent No. 2,337,856.

CALGON COMPANY

A DIVISION OF **HAGAN** CHEMICALS & CONTROLS, INC.
HAGAN BUILDING, PITTSBURGH 30, PENNSYLVANIA
DIVISIONS: CALGON COMPANY · HALL LABORATORIES

Keeps Needles Clean!

Keep rust and size deposits out of your knitting machines! Switch to Sinclair CRYSTOIL. This superior needle oil is specially formulated for knitting operations: It keeps needles free from rust, and not only resists encrustation, but *will actually remove size or crust build-up.* Fewer applications of oil are needed between sets. Moreover, the light color pays an extra bonus in finishing operations . . . scouring is minimized when CRYSTOIL has been used!

Look into the advantages of Sinclair CRYSTOIL or CRYSTOIL LIGHT (for the finer gauge machines). Call your local Sinclair Representative or write Sinclair Refining Company, Technical Service Division, 600 Fifth Avenue, New York 20, N. Y. *There's no obligation.*

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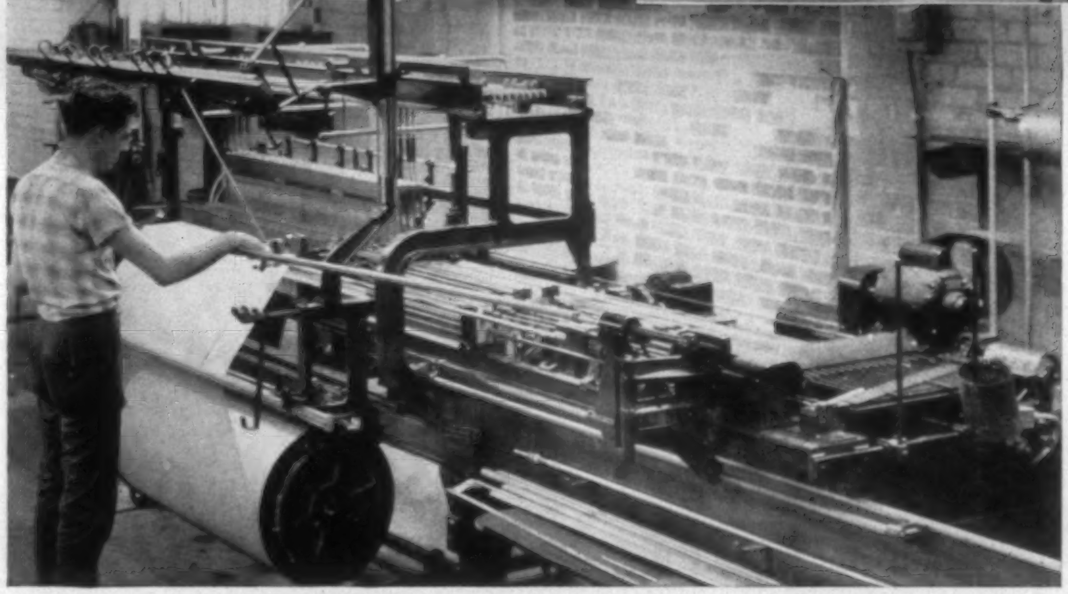

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With this machine, the time-eating task of drawing-in is speeded up tremendously. A power-driven needle, running at 127 to 230 strokes per minute (depending on the number of weaving elements to be entered), draws each thread in succession through the correct selection of drop wire, heddle, and reed dent. This correct selection is made accurately *and automatically* for each pick by a sequence of mechanical actions controlled by a pattern strip punched in accordance with the designer's draft. Very substantial reductions of drawing-in costs are possible, particularly on patterned goods such as stripes, plaids, and fancy weaves. This *modern method* of replacing warps has enabled many mills, both large and small, to meet the ever-increasing demands for a greater variety of patterns. *Your Barber-Colman representative is qualified to advise you on possibilities in your mill.*

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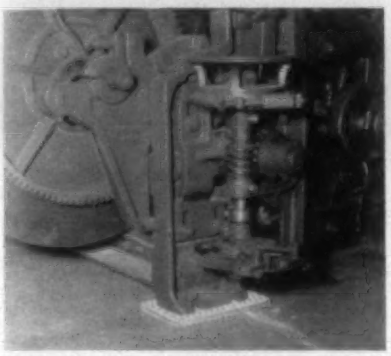
For the Textile Industry's Use

– NEW MACHINERY, EQUIPMENT AND SUPPLIES –

Jacobs Vibration Pad



Tiger Paw vibration pad (E. H. Jacobs Northern Division, The Bullard Clark Co.)

E. H. Jacobs Northern Division, The Bullard Clark Co. announces a new type vibration pad has been developed for industry. It is called Tiger Paw. The pad is for use specifically with machinery which is subject to vibration. This durable pad with a strong grip that holds machinery to the floor is molded from reinforced fiber glass and vinyl resin. The combination produces a substance that has excellent resiliency and durability. It is said this composition enables Tiger Paw pads to withstand oil, soap, detergents, water, fungus, acids, bases and salts.

Functionally designed with suction cups molded into the parallel surfaces, the Tiger Paw holds machinery to the floor without the use of adhesives, and at the same time the pad reportedly eliminates vibration problems. There is no setting or bolting required; the pad is simply placed under the machine. This is said to isolate vibration from without as well as eliminate it from within. Whenever machinery is moved, the long-lasting pad is simply placed under it again in the new location. The Tiger Paw is available in 22x22" sheets for stockroom supply, or cut to proper machine foot size. (Request Item No. E-1)

Geigy Dyestuff

A new dyestuff known as Cuprophenyl Green 2BL, which was developed especially for cotton and rayon, has been introduced by Geigy Dyestuffs, a division of Geigy Chemical Corp. This color is a bluer, more vivid shade with good dyeing qualities and excellent light fastness.

Geigy recommends Cuprophenyl Green 2BL as a self-shade, or as the keystone color to produce a wide range of cool Summer colors, heretofore not possible with this group. An ideal shading color is Cuprophenyl Yellow 3GL which can be used to produce a wide variety of greens. Its light fastness is said to be equal or superior to almost all direct or after-treated greens on the market. Anti-crease finishes such as TBL or melamine resins do not affect the shade of Cuprophenyl Green 2BL and actually enhance the light fastness. Its fastness to washing is rated very high, and a good reserve of acetate is obtained, according to Geigy. Cuprophenyl Green 2BL also is said to have a high rating of fastness to acids and alkalis. (Request Item No. E-2)

Whitin Announces Super J Comber

The Whitin Machine Works announces a new model comber, the Super J, with maximum production rates up to 50 lbs. per hour and with greater nep removal. The increased performance and production are secured by the addition of a special spring cushion plate. A redesign of the cushion plate, feed roll plate, nipper knife and an increase in the diameter of the detaching rolls reportedly makes the machine more efficient than previous models. Increased spring weighting has been applied to the nipper frame and feed rolls to accommodate heavier laps, it is reported.

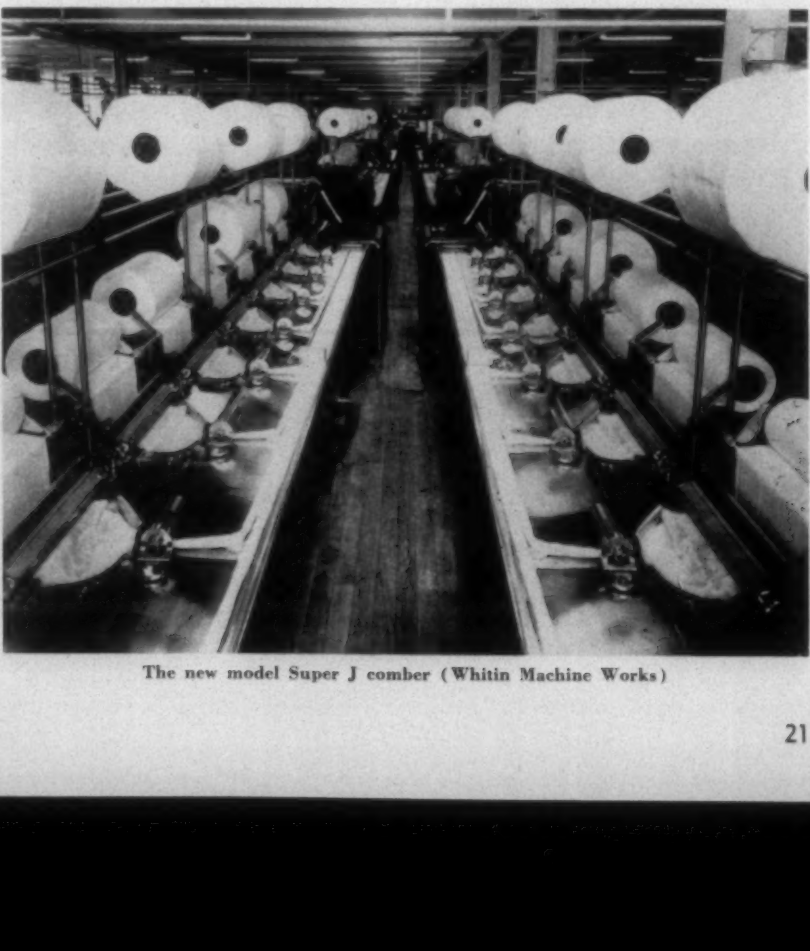
Other new features of the Super Model J include aluminum lap rolls, a lap lock pawl to insure uniform lap feed, a run-out lap knock-off motion and a 2-light signal system. One light indicates a sliver break, the other a full can. To accommodate the larger detaching rolls, head and foot-end bearings and gearing have been strengthened.

All of the advantages of the Model J Comber have been incorporated in the new model, Whitin reports. An 8-head single-sided machine, it operates at 150 nips per minute under all conditions and reportedly has 50% fewer parts than other combers. Simple and accurate waste control adjustments are used. The detaching roll drive mechanism, as on the Model J, uses 9 continuously meshing gears, providing steady smooth motion said to be proven completely dependable. With ordinary maintenance and lubrication the roll drive is said to be virtually wear-proof. The draw-box is special 4-over-5 and either single or bi-coil sliver can be produced. The new model also retains the excellent sliver evenness, low maintenance and repair costs of its predecessor the Model J.

(Request Item No. E-3)

Dayton Drafting Apron

A longer-lasting drafting apron that's said to be more flexible and repels lint and loose fibers to produce more uniform yarn has been developed by the Dayton Rubber Co. The Dayco AP 664 apron has a drafting surface of light blue "satin-finish" compounds and a semi-glass inner surface of pink. The 2-tone effect is eye pleasing while resisting discoloration usually associated with conventional aprons. The exterior blue



The new model Super J comber (Whitin Machine Works)

satin-finish is said to be effective in repelling loose fibers. The semi-gloss pink interior permits easier sliding over draft cradle nose bars and eliminates chatter and drag. Apron life is said to be extended and performance improved. Increased flexibility at no sacrifice of strength also facilitates movement around fixed nose bars. The rubber fabric's imperviousness to static and its resistance to processing oils, sunlight and general weathering exposure contribute to apron longevity, Dayton reports.
(Request Item No. E-4)

Electronic Air Cleaners

Three new models have been added to the line of Electro-air electronic air cleaners made by Electro-air Cleaner Co. Inc. The new models are: 132-H which has a capacity to clean 3,200 to 4,000 c.f.m.; No. 160-H that can clean 6,000 to 7,200 c.f.m.; and the No. 180-H which has a 8,000 to 9,600 c.f.m. capacity.

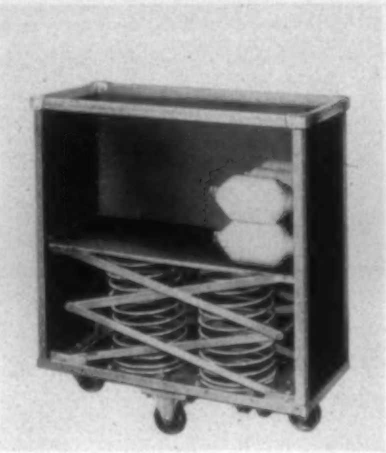
The model 132-H is sized for installation with heating equipment having 320,000—400,000 b.t.u. input and with 7½ tons capacity cooling equipment. The 160-H and 180-H are for installation with 600,000 to 960,000 b.t.u. input heating equipment, and with 15 to 20 tons capacity cooling units. These new electronic air cleaners, according to Electro-air, may be installed to operate in conjunction with any standard equipment for heating, cooling or moving air. The component parts of the newer units, including selenium rectifiers, transformers and ionizing wires, are guaranteed for 5 years against defective material and workmanship. The new Electro-air models are designed for a horizontal flow of air. They have a double manifold washing system to flush trapped dust, dirt, lint and pollen from the collecting plates. Semi-automatic and completely automatic washing systems are available.
(Request Item No. E-5)

Electric Compress Truck

According to an announcement by Elwell-Parker Electric Co., the first electric-powered cotton compress truck is now available to the industry. The truck, known as Model F-45T, has been specially designed by Elwell-Parker to meet the continuous and severe handling encountered in the industry. Of particular importance is its electric power which provides for 9 to 10-hour continuous operation, yet at the same time, eliminates dangerous gas fumes and fire hazards. Other important features are fast travel speeds, high-speed lift and lowering, and interchangeable clamp and boom, the company says.

The new truck has been compactly engineered with minimum dimensions for ease of maneuverability in close or congested areas, it is said. The frame and all units are built of the strongest material possible to withstand the most severe operating conditions, and all units may be removed separately with maximum ease for fast maintenance.
(Request Item No. E-6)

Floating Bottom Truck



Floating bottom truck (Spaulding Fibre Co.)

The Spaulding Fibre Co. has announced the development and production of a new truck for the handling and storage of textile yarns and other materials. Outstanding feature of this new Spaulding product is its "floating bottom" which depresses as the container is loaded, and raises as the load is removed, thus always keeping the contents within easy reach. The floating bottom reportedly cannot tip or jam when the load is unevenly distributed because of a specially designed linkage mechanism which keeps the bottom level at all times to prevent spilling or damaging the contents.

Made of Spaulding's own vulcanized fibre, the floating bottom container has a uniformly smooth surface, it is said. The sides cannot warp or buckle to impede the smooth action of the bottom. The entire construction is resistant to impacts, abrasions, splintering, greases and oils and other mill hazards.
(Request Item No. E-7)

Channel-Flo Compressor

Ingersoll-Rand Co. announces a new air compressor to be known as the Channel-Flo. It is a 2-stage, 200 psig rated motor-compressor presently available in 1½ and 2-h.p. sizes. The complete packaged unit includes the motorcompressor, cushioned rubber mounting on an A.S.M.E. vertical tank, interconnecting piping and fittings and automatic start-and-stop control. The manufacturer claims important safety and space-saving features in this new unit. Troublesome and hazardous belt drive is said to be eliminated because the compressor is flange-mounted directly on the driving motor. Due to this direct mounting, the Channel-Flo requires less than half the floor space of tank-mounted, belt-driven units of comparable size. It can also be mounted on a shelf, side wall or overhead bracket with the air receiver located in an out-of-the-way space.

The Channel-Flo motorcompressor features balanced-opposed piston construction, direct motor drive without belts or coupling, and a new piston ring design which is said

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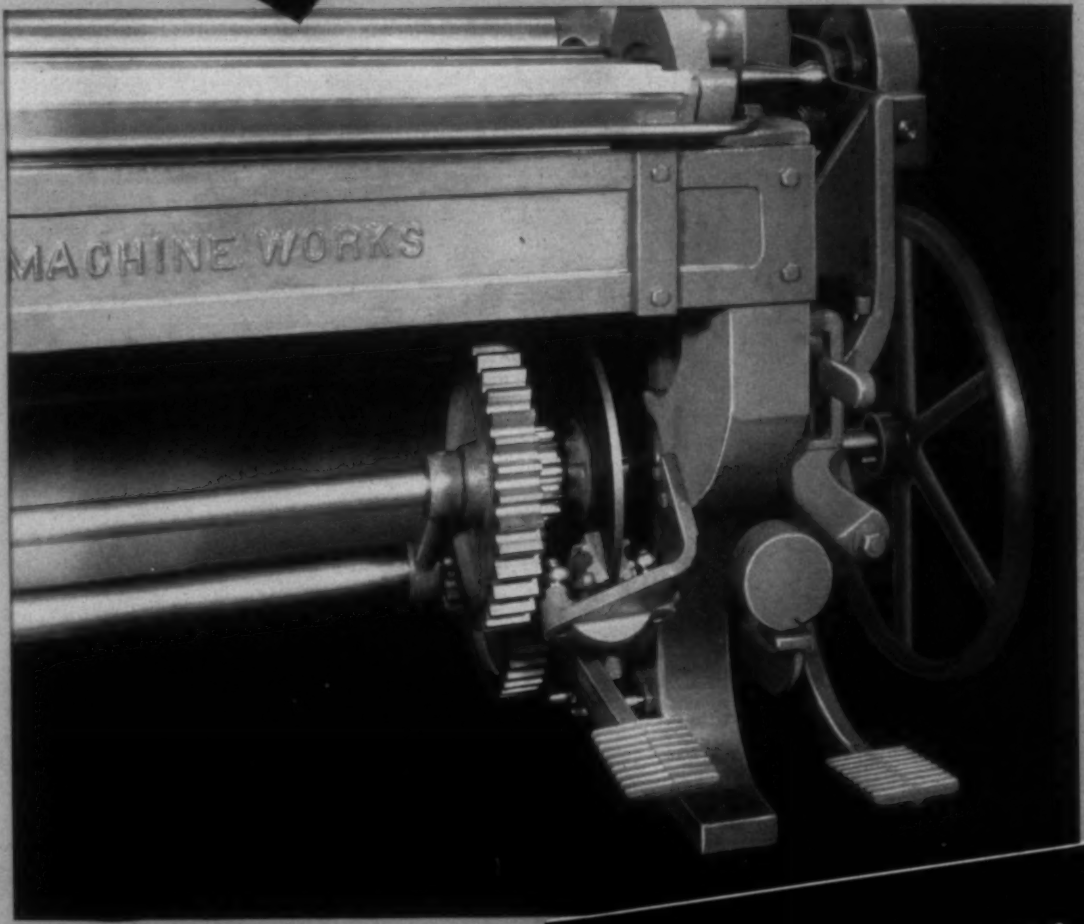
THE DEAD-WEIGHT, CONSTANT-PRESSURE CALENDER RACK RELEASE

This replaces the old friction let-off, and applies dead weight to the calender racks in the same manner as if a weight were hung on a drum-pulley on the calender rack cross-shaft. The disc, which replaces the old friction drum, is firmly gripped by clutch-pads on each side of the disc. The slightest movement of these clutch pads automatically opens them to let the let-off disc move. The disc is therefore constantly holding a dead weight in suspension, and the pressure on the lap is quite uniform.



This makes firmer, heavier laps without calender rack breakage.

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to result in unusually low oil consumption. Ingersoll-Rand further states that the Chan-nel-Flo was engineered for compactness, economy and trouble-free operation and offers many other features including a cushioned rubber compressor mounting, inlet filter and muffler, a totally-enclosed crankcase, reliable splash lubrication, standard N.E.M.A. "C" face motors, A.S.M.E. receiver and a continuous service rating.

(Request Item No. E-8)

Stainless Liquid Meter

Based on the Neptune positive displacement principle, with only one moving element exposed to the liquid, the Neptune Meter Co.'s new stainless steel meter now makes it possible to obtain close metered control over corrosive solutions and chemicals which must be kept pure. Virtually immune to chemical attack, the meter will maintain its high accuracy over long periods of service in batch mixing and general process work, it is said. By measuring the liquids "inside the pipe" it eliminates many of the hazards of handling corrosive liquids. Also important in many applications, Neptune says the meter ends processing problems caused by metal pick-up or contamination of liquids being metered.

(Request Item No. E-9)

Dry Acid Compound For Corrosion Removal

Oakite Drycid, a new powdered acid material which removes rust, scale and corrosion with greater safety to metal surfaces as well as personnel, has recently been introduced by Oakite Products Inc., manufacturer of industrial cleaning and metal treating materials. Added to water in concentrations upwards of 8 oz. to the gallon, Oakite Drycid is said to go into solution fast and to be useful in applications by circulation or immersion. Solutions of the compound may be used cold or for faster action, heated to 165° F. It is said to be effective in the removal of scale, scale-like deposits, rust, iron sulphides and other oxides.

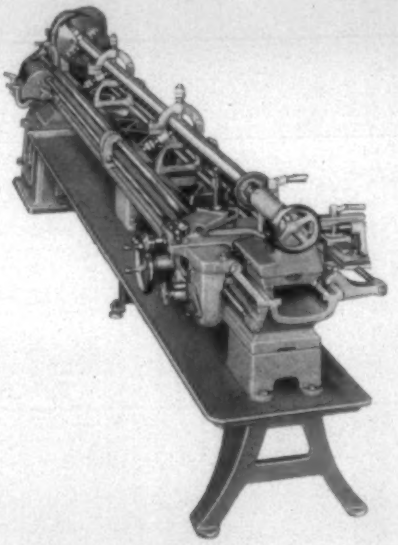
Major advantages of this new material include its ease in shipment and in storage as it requires non-returnable carboys but is shipped in fiber drums; its mild, aromatic odor and non-fuming characteristic; its greater safety on aluminum, brass and galvanized surfaces, when used as recommended. (Request Item No. E-10)

Improved Masking Tape

An improved version of a high-temperature masking tape with better resistance to adhesive transfer and easier removal properties has been announced by Minnesota Mining and Mfg. Co. Designed especially for critical high-temperature masking conditions, the tape—No. 214 (Type 2MNB)—can be used in temperature up to 300° F. for bakes up to 8 hours in duration. It will withstand heat cycles of shorter duration up to temperatures of 400° F., the 3M company said. The tape, with its improved properties, has a patented crepe paper backing and a firm pressure-sensitive adhesive. It can hold textiles during high heat pleating operations, the 3M company said. It has a tensile strength of 20 lbs. per in. of width, an adhesion to steel of 25 oz. per in. of width, and elongation of 9%. It is 8 mils thick. The tape is available in standard roll lengths of 60 yds. and in any width.

(Request Item No. E-11)

Long Bed Lathe



A new 16" x 14' lathe for machining tubing, shafting and other long work (South Bend Lathe Works)

South Bend Lathe Works has introduced a new long bed lathe designed especially for machining tubing, shafting and other long work. The new 16"x14' lathe takes up to 129" between centers. Swing over cross slide is 9⅝" (11⅛" without chip guard) and maximum capacity over bed ways is 16¼" diameter. Continuous X-bracing is used the entire length of the bed to provide extreme rigidity.

With 16 speed drive, the spindle speeds range from 15 to 980 r.p.m. Motor and driving mechanisms are enclosed in a cabinet base under the headstock. The spindle hole takes work up to 1⅜" and maximum collet capacity is 1". The spindle can be supplied with threaded, cam lock or long taper key drive nose. The quick change box provides .8 thread cutting feeds, 48 power longitudinal carriage feeds and 48 power cross-feeds.

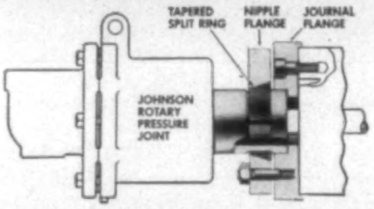
Accessories available for use with this lathe include pipe centers, steady rest, follower rest, taper attachment, external and internal grinding attachments, collet equipment, coolant reservoir and pump, turret tool block, pneumatic bar feed, milling and keyway cutting attachment and a complete line of chucks and tools.

(Request Item No. E-12)

Chlorine-Resistant Finish

Bradford Dyeing Association (U.S.A.) has announced that a new chlorine-resistant cotton finish has been developed by its research laboratories. This new finish, called Bradperma CMI, offers a 100% "drip dry" feature and chlorine resistance to cotton fabrics for shirts, shorts, pajamas, uniforms, blouses and white goods of all kinds. Bleaches and detergents may be used safely on cotton finished with Bradperma CMI without fear of the material turning yellow, the company says. Bradperma CMI is used in conjunction with the mercerized Rigmel Shrunk process and keeps residual shrinkage within 1%. (Request Item No. E-13)

Quick Release Nipple For Johnson Joints



Quick release nipple for use with Johnson rotary pressure joints (The Johnson Corp.)

A new quick release nipple has been developed by the Johnson Corp. for use with the company's rotary pressure joints. Johnson joints are used on dry cans, calenders and slashers to admit steam or liquids under pressure to rotating rolls or drums. This new quick release nipple, or Q nipple, greatly simplifies the task of connecting joints to journals of such machines.

The nipple consists of 3 parts—a journal flange, a tapered split ring and a nipple flange. The journal flange is fastened to the journal with counter sunk cap screws. It has a recess into which the nipple fits, and threaded studs on which the nipple flange is fastened. The tapered split ring is wedge-shaped in cross section. The 2 halves fit into a recess in the nipple, and bear against the shoulder at bottom of this recess. The nipple flange slides over the tapered split ring, and onto the threaded studs of the journal flange. When the nuts on the studs are drawn up the wedging action between the nipple flange and the tapered split ring exerts a tremendous force to lock the nipple securely in position. The nipple can be disassembled, and joint removed, simply by backing off the nuts.

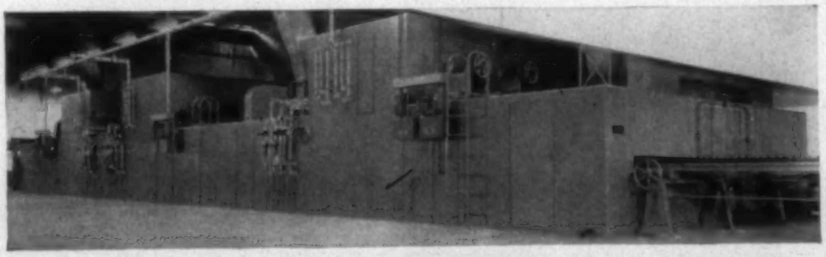
In contrast to the old threaded nipple, this new Q nipple needs only a simple wrench for installation or removal of the joints, Johnson points out. It ends any danger of damaging or crushing the nipple with heavy pipe wrenches. The Q nipple can be furnished on all Johnson joints—the pipe-supported Type J, the rod-supported Type L, the self-supporting Type S, and the Type N which serves where an internal pipe must rotate with the roll. Johnson joints are available in sizes from ¼" to 8", for pressures up to 250 p.s.i.

(Request Item No. E-13a)

Mathieson Surfactants

A new "J" series has been added to the Poly-Tergent line of nonionic surface active

Tenter Housing
Output UP 50 to 150%!



PROCTOR'S
DUPLEX AIR CIRCULATION
is the answer

The reason why the Proctor Tenter Housing offers the greatest drying capacity per foot of length, lies in the careful design of Proctor's duplex air circulation system. It is the only system that gives absolute uniformity of drying or curing. User experience has actually proven output increases of up to 150% over conventional housings!

The Proctor air circulation system, with its accurate control, has another advantage too. It permits handling of the widest range of fabrics, with the assurance that each will receive exactly the correct treatment.

You cannot afford to overlook a machine that will pay for itself, out of savings, in two years, as shown in actual case histories. Ask for a Proctor engineer to go over your requirements, and judge for yourself the advantages to be gained by the use of this Tenter Housing.

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AUTOMATIC BLENDING SYSTEMS • WEIGHING FEEDS • PICKERS • SHREDDERS • BALE BREAKERS • SYNTHETIC CARDS • GARNETTS • DRYERS FOR FIBROUS MATERIAL • YARN DRYERS • HOT AIR SLASHER DRYERS • CLOTH CARBONIZERS • ROLLER DRYERS AND CURERS • LOOP AGERS FOR PRINT GOODS • TENTER HOUSINGS • OPEN-WIDTH BLEACH SYSTEMS FOR WOVEN FABRICS • MULTIPASS AIRLAY DRYERS • NYLON SETTING EQUIPMENT • CON-O-MATIC WASHERS • CONTINUOUS BLEACH SYSTEMS FOR TUBULAR KNITS • EQUIPMENT FOR PRODUCING "REDMANIZED"® SHRUNK-TO-FIT FABRICS • CARPET DRYERS

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Proctor
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Manufacturers of Textile Machinery and Industrial Drying Equipment

agents introduced earlier this year by the industrial chemicals division of Olin Mathieson Chemical Corp. An outstanding characteristic of the new series is said to be the wide temperature range over which the products are effective. Extending from 0 to 100° C., this range is greater than that available through most other large volume nonionics. One member of the series, Poly-Tergent J-500, can be used at the boiling point of water without serious loss of its surfactant properties.

The "J" series consists of 4 products of ascending molecular weights. All are aliphatitc polyoxyethylene ether alcohols. They are clear liquids of low viscosity, pale yellow to amber in color, and have a mild, pleasant odor, according to Mathieson. All members of the series are good wetters, detergents and dispersants. They are stable under a wide range of conditions, and because of their effectiveness at low concentrations they can be employed under many conditions of marginal compatability, it is said.

Poly-Tergents J-300 and J-400 are effective scouring agents in all stages of wet processing and types of equipment. In desizing, they will improve the penetration of starch-liquefying enzyme baths at levels as low as 2 to 4 oz. per 100 gals. of desizing liquor. Ability to function in highly alkaline solutions and at elevated temperatures makes the "J" products effective aids in kier boiling of cotton raw stock, yarn and piece goods, in both open and closed kiers. As bleaching assistants, J-300 and J-400 assist wetting and keep the bath clean without undergoing decomposition from either hypochlorite or peroxide. Both products are, according to Mathieson, equally efficient in promoting wetting in the dye bath.

All members of the "J" series are compatible with basic colors as well as direct or acid colors, and can serve as retarding or leveling agents. J-500 is particularly effective as a leveling agent. The high chemical and metallic stability of J-300 and J-400 make them especially effective in the soaping of prints and vat and naphthol dyeings.

J-200, J-300 and J-400 are said to be useful in finishing baths where instantaneous wetting of the fabric is important. All members of the series can be used with many finishes to promote speed of penetration without appreciably affecting such properties as hand, crease resistance and tensile and tear strength.

(Request Item No. E-14)

Pilling Tester

The United States Testing Co. has completed the trials of its new pilling tester and announces the availability of this instrument to industry. The pilling tester, which conforms to A.S.T.M. specifications (D-1375-55T), has been used for several years in the testing company's laboratories. A compact, efficient instrument, it can be used to test both knitted and woven goods. Test results are obtained in a matter of minutes.

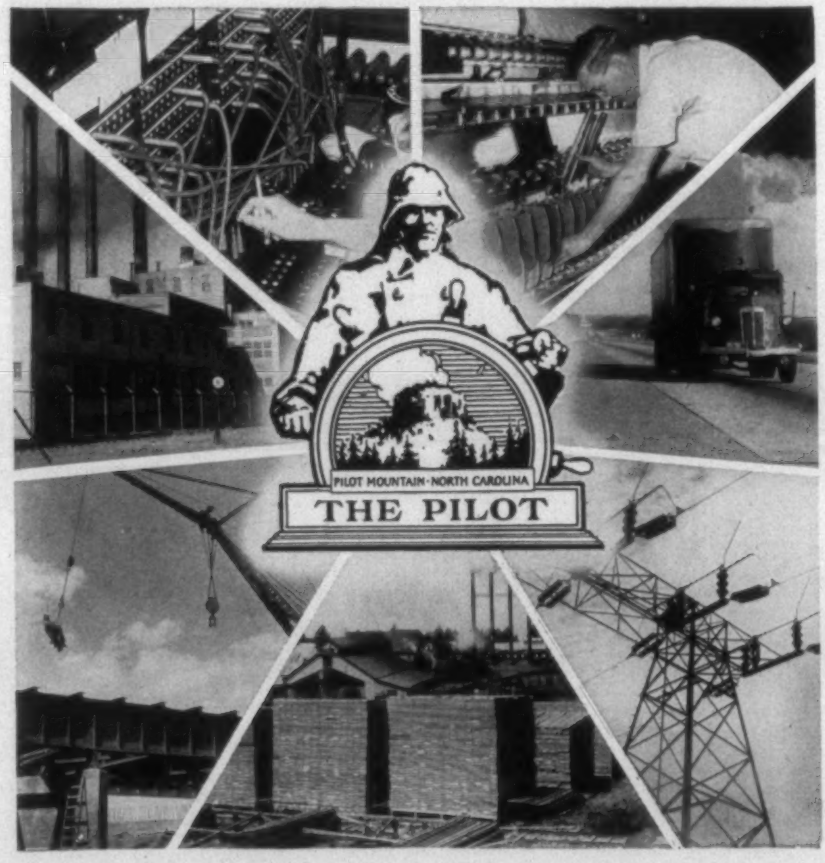
In the new pilling tester, a complex rubbing and twisting action is achieved by contact of a reciprocating table, which holds the abrasive and rotary head, to which the sample is attached. This rotary action simulates the type of wear instrumental in causing fabrics to pill, the company reports.

The instrument comes equipped with a grit surface table and a rubber sheet table. In addition, ring clamps on both the tables and the rotary head permit easy substitution of a variety of other surfaces. Because of this, the pilling tester can be employed in durability tests of a wide assortment of articles whose wear depends on a rotary type action. Other features of the pilling tester include a stroke counter, clearer brush and attachment for varying the pressure imposed on a sample. In addition, provision is made for adapting the instrument for wet-and-dry tests.

(Request Item No. E-15)

Adjustable Conveyor

A new aluminum portable belt conveyor, hydraulically adjustable and specially engineered to facilitate unloading, transferring, boosting and stacking operations, has been developed by the E. W. Buschman Co. The new Trojan Series A conveyor cuts handling time and costs because it reportedly adjusts by finger-touch to optimum height and angle of incline to suit the materials handling need. In the extreme raised position, this conveyor is said to provide handy high-low transfer for loading and unloading freight



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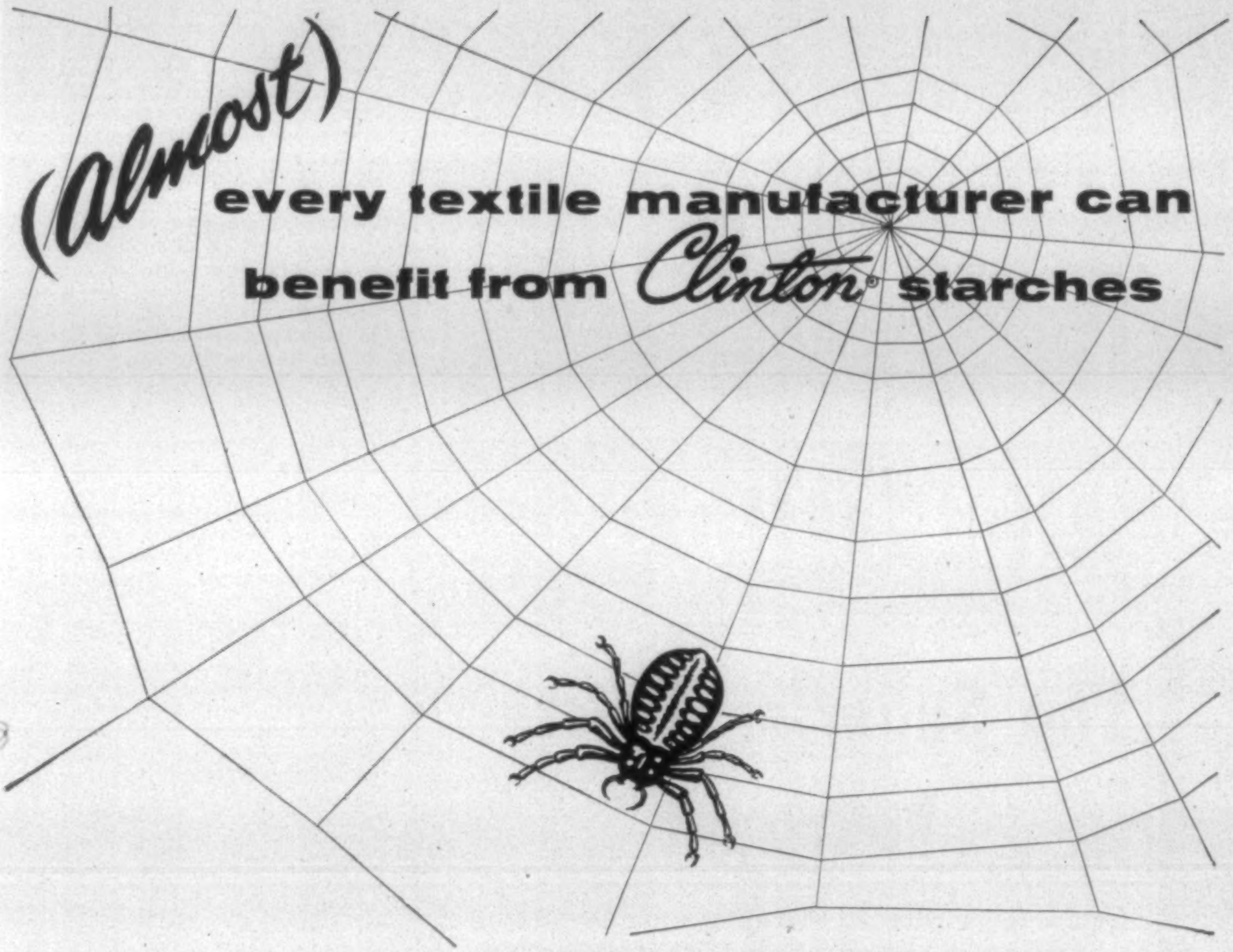
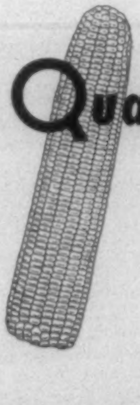


(Almost) every textile manufacturer can benefit from Clinton® starches

THOUGH OF NO CONCERN TO THIS MASTER WEAVER, warp sizing is often the key operation in textile manufacture. Clinton starches answer every common requirement for warp sizing. Because of their uniform high quality, Clinton starches can be depended on to permit high weaving efficiency under a wide range of conditions. It's a fact that many mills use Clinton starches as a standard of comparison.

In the finishing operation, too, Clinton starches provide a consistently dependable means of producing the precise hand or weight which various fabrics may require. Make the most of your investment in machinery by relying on quality starches by Clinton.

. . . and remember technical service in connection with your specific problems is available without obligation.



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CLINTON

CLINTON CORN PROCESSING COMPANY
CLINTON, IOWA

Our 50th Anniversary Year — 1907-1957

cars, taking bags and boxes away from sealers, etc. In low-level position, Buschman says it acts as a low-cost power component in wheel and roller conveyor lines. In-between positions can be easily selected to meet a wide range of product handling operations.

Available in 10, 12, 14, 16, 18 and 20-ft. lengths, the Trojan Series A operates in both forward and reverse. The non-slip belt, 12" wide, safely elevates at angles up to 30° without cleats; for steeper angles, cleats are available to assure efficient handling. Heavy-gauge aluminum alloy frame and removable undercarriage are said to fold easily, to make this conveyor extremely compact for low-cost shipment and storage. All moving parts are safely shielded, yet the unit is light in weight for easy mobility. The new Trojan Series A features Buschman Quick-Eez coupling for fast set-up in conjunction with other types of conveyors. The power unit includes a ½ h.p. motor on units up to 16', ¾ h.p. on units 18' to 20'. Belt speed is 55 f.p.m. All Trojan Series A units are test-run, ready for immediate operation.

(Request Item No. E-16)

Finishing Oil

American Cyanamid Co. has announced the development of No-Odorol 1299-S, a sulfonated oil made from selected saponifiable oils. A clear, bright, light-colored oil at room temperatures, it is described as a highly uniform product which does not vary from shipment to shipment. No-Odorol 1299-S is recommended for the softening and finishing of cotton, rayon and synthetic fabrics of various constructions when a full, smooth, well-lubricated hand is desired. It is said to be highly resistant to discoloration and odor development due to special treatment in the manufacturing process and may be used alone as a softening agent for pure finishes. American Cyanamid says the new oil may be used with all of the commonly used anionic and nonionic agents, starches and gums in textile finishing formulae.

No-Odorol 1299-S produces highly absorbent finishes on most fabrics and eliminates the need of a rewetting agent, in many cases, on fabrics that are to be sanforized. The oil is said to enhance sewability and cutting and act as an excellent softener for all types of yarns.

No-Odorol 1299-S is free from volatile mineral oils and minimizes the possibility of condensate forming in closed frames at high drying temperatures, according to American Cyanamid.

(Request Item No. E-17)

Lightweight Dolly

Stokvis-Edera & Co. has announced a new dolly, the Multiton Junior, which is said to fill the need for an inexpensive method with which to handle loads of from 1,000 to 6,000 lbs. close to ground level. Multiton Junior is only 2⅝" high. Of all steel construction, it moves on three 2¼" diameter rollers each equipped with precision neoprene-sealed ball bearings. Rolling friction is said to be reduced to a minimum so that capacity loads can be moved without powered equipment of any kind. Sturdy yet light (a compact 12½ lbs.) the new dolly can be used in sets of 2, 3 or 4 to fit the load. It is available in straight motion or as swivel-type models.

(Request Item No. E-18)

Block-Out Kit

Complete block-out kit for reclaiming used shipping containers (Diagraph-Bradley Industries)

Diagraph-Bradley Industries has announced a new block-out kit which is designed to contain everything necessary for reclaiming used shipping containers. The kit may be used also for correcting errors made on new cartons. The block-out allows the correction to be made quickly, neatly and

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economically. It is reported especially suitable for use on corrugated boxes but equally usable on wood crates, cloth sacks, metal drum heads, etc.

Block-out ink is a tan obliterating fluid which can be applied with brush or roller. One coat is reported to cover all old stenciling, crayon marks, labels, etc., and dries immediately leaving a clean surface suitable for any type of marking. The container, which holds a quart of ink, has a chimney-type cover which allows the brush to remain in ink and always be ready for instant use.

Diagraph-Bradley supplies the kit with one gallon of block-out ink, one 3" pure bristle brush and one quart of block-out thinner which is used for thinning the ink as required or for cleaning the brush.

(Request Item No. E-19)

Arnold, Hoffman Releases Dual-Purpose Weighter 546

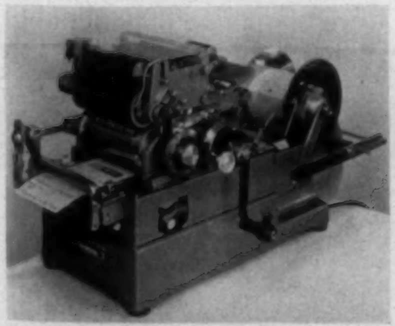
New Weighter 546 is described by Arnold, Hoffman as a double-purpose product, in that it combines the desirable characteristics of softener and weighter into one convenient, easily applied finishing agent.

Arnold, Hoffman states that Weighter 546 may be applied to a variety of knit or woven fabrics by any non-substantive means. Because it exhibits stability under diverse conditions, other ingredients may be added to the finishing bath to impart additional fabric characteristics. Similarily, ingredients may be added to increase or enhance the softening and/or weighting properties of Weighter 546. Desirable effects are obtained by the addition of Ahcovel A. In general, however, Arnold, Hoffman notes that use of the weighter alone is sufficient for most applications.

Composition of Weighter 546 includes 50% active ingredients. It dissolves readily in water, and is said to have excellent storage stability. Conditions normally encountered in finishing and in domestic use, the makers report, will not cause Weighter 546 to discolor fabrics or to impart an odor to the fabrics to which it is applied.

(Request Item No. E-20)

U. S. Distributor Named For Wam Label Machines



The Wam label imprinting machine (Jackmeyer Label Corp.)

All models of Wam, the European line of label imprinting machines, are now avail-

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The Fibre Truck, shown at left, is made of genuine vulcanized fibre riveted to 2" steel band framing. 48" long, 23" wide, 30" deep and is equipped with roller-bearing rubber casters.

We manufacture this popular QUILL CAN or Bobbin Can (shown here) to specifications in three sizes—long, short or half size. We can furnish any type Can for various type looms, any style or design. Send us your inquiries.

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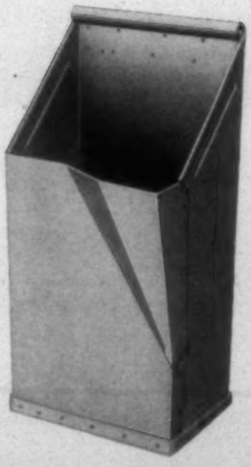

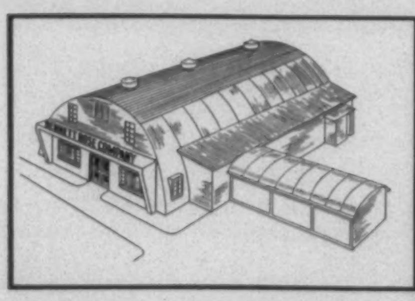

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able to American manufacturers through Jackmeyer Label Corp. Wam machines are designed to handle special imprinting problems on labels and tags. All models of Wam will reportedly imprint on cloth, pressure-sensitive material, heat-seal paper, gum labels, button tags, pin tickets, string tags, and all forms of box labels, and packaging identification labeling in sizes from 1" x ½" up to 4¾" x 6¼". Every Wam model will run in variable sizes it is said. Manufacturers whose standard labels or tags must have special identifications for sizes, quantities, lot numbers, classifications, contents, changeable prices, trade names, can now print their own at 120 per minute.

Features of the Wam line are said to include consecutive numbering units; set numbering wheels which are changeable in seconds; automatic pre-set counter; fully automatic label rewinds or automatic label cutting; interchangeable inking units; 2-color imprinting; combinations of numbers and letters and up to 23 lines of imprinting on one label or tag. Special printing cylinders are designed for the particular needs of manufacturers. Jackmeyer reports these machines occupy about half the space of a standard typewriter.

(Request Item No. E-21)

Laboratory Dyeing Machine

A line of high-temperature laboratory dyeing machines, specifically designed for dye experimentation and research, are being introduced in the U. S. by Cosa Corp. These machines are said to provide a versatile and dependable means of pre-testing dye formulas and techniques on any textile fiber in any form. Made by Scholl Ltd., these laboratory dyeing machines have been field-proven in one of Switzerland's largest dyehouses. They are exactly proportioned to full-size production machines. Cosa reports that by pre-testing with these machines dyers can carry out subsequent, full-scale dyeing without stopping for changes or corrections. Dyeing can begin above or below the boiling point and be carried on with or without pressure. Dyestuffs and chemicals can be added, according to Cosa, and samples taken at any time, without interrupting the dyeing cycle—even during high-temperature dyeing. By means of the overflow and reserve tank it is said a new bath can be prepared while dyeing is continued in the main pressure kier. A window permits constant observation of the liquid within the machine. Scholl laboratory dyeing machines are constructed of acid-resistant stainless steel. They are easy to service and extremely low on maintenance, it is said.

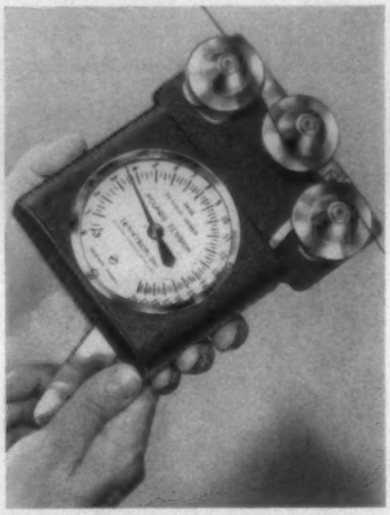
(Request Item No. E-22)

Aluminum Take-Up Bobbin

A new aluminum take-up bobbin has been introduced by Allentown Bobbin Works. The bobbin features an aluminum barrel and heads which are brazed together and anodized against corrosion. The result is a strong, single unit without joints, cracks or crevices where the yarn can be trapped. The 3/16" aluminum gives a strength that is said to be far superior to comparable bobbins of other materials produced by other construction methods.

(Request Item No. E-23)

Tension Meter



New lightweight tension meter (Tensitron Inc.)

A new lightweight tension meter for checking tensions during the processing of yarns and cords is announced by Tensitron Inc., maker of instruments for the measurement and control of tension and torque. This new instrument has a range of 1 to 20 lbs., with great resolution at the low tension end. It features a lever-inserting mechanism whereby 2 outer rollers are lowered or raised simultaneously. The controlling lever is at the side of the instrument away from the moving material, thus protecting the operator's hands, and the moving material is kept away from the observer at all times. The rollers are tapered, thus widening the opening where the material to be tested is placed and at the same time guiding the material into test position. Wide flanges at the bottom of the low-inertia rollers hold the material securely in place while tension is read as the material travels at production speed.

(Request Item No. E-24)

Test Indicating Light

A push-to-test indicating light unit that provides a quick and positive method of testing for burned out lamp bulbs on control panels and pushbutton stations has been announced as available from the General Electric Co.'s general purpose control department. Through the use of a continuously energized testing circuit an immediate indication of a faulty bulb is given by pressing the unit's color cap. It is not necessary to remove the indicating light cap or the bulb.

The device's basic unit is interchangeable with the company's new illuminated oiltight pushbutton by simple removal of jumper wiring. The unit's heavy-duty contact block is the same as on other oiltight units. It is said to be easily fitted in the same hole and mounting space as existing oiltight units and the push-to-test device can be panel or back-mounted.

The unit's transformer is built for extended life and provides the safety of an insulated secondary winding, according to G. E. Strongbox construction protects the transformer's coils from mishandled tools or other mechanical damage. The strongbox transformer is the same size as the heavy-duty oiltight contact block.

(Request Item No. E-25)

Pipe-Gripping Chuck

A new chuck is now being furnished by Oster Mfg. Co. on all 2" Oster pipe and bolt threading machines which revolve the work. Known as the Power-Matic, this new universal gripping chuck is operated by a hand wheel and requires no bars or tee wrenches to grip the work securely for cutting both right and left-hand threads. The jaws are brought down on the work by means of the handwheel and the rocking action of the neoprene bonded insert jaws grips automatically, without hammering. The insert jaws are easily removable for sharpening or replacing without removing the entire jaw body. The new chuck will grip all sizes of pipe from ⅛" to 2" and bolts or solid stock from ¼" to 2". It can be adapted to most 2" Oster machines already in use. (Request Item No. E-26)

Fitting For Flexible Tubing

A fitting designed for easy installation in all types of flexible tubing requires no welding, no special adhesives and no threading. This design is reported to assure a joint as strong as the tube itself and does not reduce i.d. or flow. The Danielson Mfg. Co. introduced this easy-to-install tube fitting especially for plastics and rubber tubing. Making a tight, strong fitting is completely mechanical. The Danco fitting (elbow, tee, 90° or special design) is slipped on tube and, using the special ring holder, a non-corrosive ring is inserted into the tube. Tightening the molded nylon Danco fitting completes the operation. The joint is said to be tight, strong and light weight. Special fittings for a wide range of tubing applications are available.

(Request Item No. E-27)

Sandoz Dyestuffs

Sandoz Inc. has announced the development of three new dyestuffs.

Diazamine Blue BRG Conc. is a new dyestuff in the Sandoz line of diazotized and developed colors. Developed with beta naphthol, it provides a blue which is desirably greener in shade on viscose. It discharges a pure white by alkaline and neutral discharge methods. Wash and light fastness are said to be unusually high for a diazotized and developed color.

Sandothrene Yellow NLGR Paste Ultrasperse, a new Sandoz vat dye, is highly rated for fastness to light even in pastel shades. Sandoz recommends it for applicaion by all methods. With this dyestuff here is no tailing out on long runs. It nay be printed by the flash ageing method. This level dyeing yellow exhibits good all round fastness properties, shows best results in pigment application.

A brighter blue green dyestuff for use on man-made fibers has also been announced by Sandoz. Reportedly the brightest bluish green of all dispersed dyes, the product, Artisil Direct Blue Green G, is said to be suitable for dyeing acetate, polyester, acrylic and nylon fibers. It possesses a high degree of heat stability and is therefore being recommended by Sandoz for dyeing nylons and triacetates which will be heat-treated

(Request Item No. E-28)

A.C. Sensitive Relay

The development of a new a.c. sensitive relay with transistor amplifier has been announced by Cutler-Hammer Inc. The new electronic component, designed to resist vibration, corrosion and shock, has an array of standard features which includes a 2-pole, double-throw plug-in relay protected by a clear polystyrene dustproof cover; a long-life plug-in transistor amplifier and power pack module; 12-volt d.c. sensing circuit and a low sensing circuit current (less than 0.002 amps). No warm-up time is required and a convenient terminal board is provided for making external connections.

Low capacity contact making devices such as drop wires, feeler switches and gauges, contact making instruments, sensitive thermostats and slow-make, slow-break contacts will operate without electrical damage when used with this relay. Its high-speed operation makes it desirable for use in stop motion or sorting circuits. The low voltage non-inductive circuit reportedly results in no visible arc and thus eliminates fire hazards on applications where the sensing contacts must be near flammable material. Long distance remote control, liquid level control and photo cell applications are said to be possible due to the relay's sensitivity.

(Request Item No. E-29)

Acrylic Emulsion

Availability of Resin CB, a new acrylic emulsion for use as a backing for carpets and automotive upholstry fabrics, has been announced by Jersey State Chemical Co. Resin CB is claimed by the manufacturer to be light and heat fast and extremely durable. The new product requires no curing, can't crack or become brittle and is said to have excellent pigment binding properties. It can also be used to produce a variety of films, soft to hard.

(Request Item No. E-30)

High-Strength Fiber

Avisco XL, a new, high-strength staple fiber, has been announced by American Viscose Corp. Described as the greatest improvement in rayon since its invention, yarns in the new staple are said to be 70% stronger when wet and 40% stronger in

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the dry-conditioned state than conventional rayons. The new fiber reportedly has broad market applications in industrial uses as well as in apparel and home-furnishings. In comparable construction and weave, it is said, Avisco XL fabrics have 25% more breaking strength and 33% more tear strength than cotton.

Avisco XL has been spun at American Viscose's textile research department into yarns as fine as 60/1 with 1.5 denier, 1 9/16" staple. Because of increased extensility, the new fiber is said to be compatable with the acrylics and polyesters (the non-cellulosic fibers) for blends. This indicates new, lighter-weight, minimum care fabrics with the draping characteristics of regular rayon. (Request Item No. E-31)

Butane-Powered Sweeper

Single-cylinder, four-cycle engines for use with butane gas are now being offered by the Modern Power Sweeper Co. as optional equipment on all its indoor-outdoor sweepers. New engines will run almost indefinitely without repairs because Butane does not have the corrosive action of gasoline. Butane is said to reduce operating costs considerably not only because of its lower cost per gallon but also because it cuts maintenance costs at least 50%. The complete combustion of the fuel eliminates carbon and gum deposits on both engine and accessory parts and drastically reduces lubricating oil costs. Butane is said to be more desirable for use in plants where gasoline fumes are objectionable. Modern Power Sweeper's butane engines also offer an important safety feature. Since Butane is stored in sealed containers, fire hazard is practically eliminated. The possibility of spillage and evaporation is also eliminated, Modern Power reports. (Request Item No. E-32)

Liquid Bleach For Dacron

Geigy Dyestuffs, a division of Geigy Chemical Corp., is now offering an optical bleaching agent designed to produce brilliant clear whites on Dacron. The product is known as Tinopal E Liquid and is said to fill a need in the industry as heretofore it was necessary to employ chemical bleaching to obtain whites on Dacron. The results obtained with the new product are said to be far superior in brilliancy and clearness as compared with the results obtained by the older method.

One of the features stressed by Geigy is the application versatility as Tinopal E Liquid can be successfully used under a variety of conditions. It is practically unaffected by pH and may be applied in a Textone bleach bath, an anti-chlor treatment or in an oxalic acid/ammonium bifluoride graphite removal operation. It is also stated that Tinopal E Liquid has good resistance to washing, atmospheric fading, pressing perspiration acid and alkaline spotting, and light. Heat setting or subsequent treatment with melamine resin is said to have practically no effect on the product's properties. A unique feature of Tinopal E Liquid indicated by the manufacturer is that when applied to Dacron, the brightening effect of Tinopal E Liquid is noticeable under artificial as well as natural light. This phenomenon is very rare among the optical brighteners now on the market for other fibers, it is pointed out. (Request Item No. E-33)

Tennessee Sul-Fon-Ates

The availability of Sul-Fon-Aates BL, OE-300, X-35-L, X-50-L and X-60-LT has been announced by the Tennessee Corp. Sul-Fon-Ate BL is a new liquid surfactant which exhibits high surface activity in strong alkaline medium and good surface activity in high concentrations of mineral acids. It finds application, it is said, as a wetting agent and penetrant in mercerizing and kier boiling of cotton and in many other wet alkaline textile processes.

Sul-Fon-Ate OE-300 is the latest addition to the firm's line of anionic organic sulfonates. It functions as an excellent wetting and rewetting agent, it is said. OE-300 is used as a rewetting agent in the sanforizing of cotton piece goods and as a toweling finish. It is said to produce what might be termed a "water absorbent finish."

Sul-Fon-Ates X-35-L, X-50-L and X-60-L constitute a series of liquid, multi-purpose anionic surface active agents based upon alkylaryl sulfonates. These products are said to answer the need for economical, liquid, low-cloud-point detergents and wetting agents. (Request Item No. E-34)

For the Mill Bookshelf

Draper Repair Parts Catalog

A new improved repair parts catalog for Draper X and X-2 model looms has been published by Draper Corp. It will be distributed to mills having X and X-2 model looms by Draper sales personnel as an aid to gaining maximum efficiency from their Draper looms. Illustrations covering latest loom constructions, together with complete listings of improved repair parts, permits identification and ordering of proper replacement parts quickly and easily. (Request Item No. E-35)

Variable Speed Drives

A new variable speed drive catalog, featuring patented single-groove variable flange sheaves, has just been made available by the Dayton Rubber Co. The 8-page 2-color catalog gives complete data for the selection of drives designed to accommodate Dayton's Q, R and W cross-section variable speed cog belts. Such drives are especially suitable on spinning frames. The new catalog includes 5 drive tables giving a wide selection of speed ratios, driven speed ranges and center distances for motors up through 20 h.p. This wide coverage of drive combinations is accomplished by the use of 5 sizes of patented variable speed motor sheaves in combination with the required sizes of companion driven sheaves, and with a wide range of belt lengths. (Request Item No. E-36)

Splicing Carpet Yarns

Recommended techniques and splicing compounds for an improved nylon carpet yarn splice are described in Bulletin N-88 which has been released by the Du Pont Co. The single-page bulletin gives information regarding preparation of the yarn ends, application of the latex, joining of the ends and inspection of the completed splice. (Request Item No. E-37)

Slide Chart

A new pocket-size chart on machining stainless steel is now available from The Carpenter Steel Co. This handy chart measures 9¼" x 4¾", and contains a wealth of the latest information on how to machine the popular grades of stainless. On one side it gives concise data on turning, drilling, tapping, threading, milling and reaming operations. It tabulates speeds and feeds, and gives special notes on drilling, tapping, lubrication and welding. The other side of the chart shows relative workability of stainless steels in a wide variety of operations including blanking, deep drawing, stamping, forging, heading, roll threading, welding, etc. An inserted slide moves to show, at a glance, the machining data desired. (Request Item No. E-38)

Ovens And Dryers

Catalog No. 570, which has been made available by The Lanly Co., describes its line of ovens and dryers. This 8-page catalog contains photographs and schematic drawings of various Lanly equipment. It describes air flow in detail and shows material flow through each dryer. (Request Item No. E-39)

Swedish Card Clothing

Oliver D. Landis Inc., exclusive sales agent in this country for the card clothing manufactured by A. B. Kardbeslag of Norrkoping, Sweden, is offering a 2-page reprint entitled *Swedish Spring Steel Wire and the* *uropan Hardening Method*. The literature tes a number of advantages offered in the e of Swedish spring steel in card clothing, d describes how the Duropan hardening ethod prolongs the life of Kardbeslag lothing. Copies of the article can be ob-ained by using this journal's reader service equest card.

(Request Item No. E-40)

estershire Bobbins

A new catalog covering the complete line f Lestershire bobbins is available from the Lestershire Spool Division of National Vulcanized Fibre Co. Titled *Lestershire Bobbins*, this 12-page catalog describes and illustrates standard and special bobbins made from: (1) vulcanized fibre; (2) Phenolite laminated plastic; (3) hard, close-grained Northern Maple; (4) steel; (5) aluminum; and (6) special alloys. Sixteen typical examples of 5 basic types of bobbin construction—hammered, threaded, anchor screw, screw type and tubelock—are explained and shown.

(Request Item No. E-41)

Shielded Electrification

The American MonoRail Co. has published a bulletin, No. KS-1, which covers its new Kant-Shock polyvinyl chloride shielded electrification for overhead handling systems. This 8-page, 2-color booklet is complete with illustration showing the advantages of Kant-Shock shielding as applied to the handling systems.

(Request Item No. E-42)

Pneumatic Specialties

A folder describing its filters, regulators and lubricators has been publshed by the Watts Regulator Co. The 4-page folder, F-15B, is illustrated and contains engineering specifications.

(Request Item No. E-43)

Technical Bibliography

A 12-page bibliography listing all the major technical literature on textile dyeing, printing and finishing is being offered to the textile industry as a public service by Royce Chemical Co. The bibliography was compiled by the Manchester Library in Manchester, England. The list was obtained by special arrangement between the library and Royce. The bibliography is described as being the most complete of its kind in existence. It lists all literature on the past 30 years of textile industry progress.

(Request Item No. E-44)

Lubrication Test

Lubrication Newsletter, Vol. 1, No. 2, containing a technical paper on the measurement of surface temperatures under sliding friction by a newly developed thin thermocouple technique has been released by The Alpha Molykote Corp. This technical article discusses the development of a method to measure frictional temperatures

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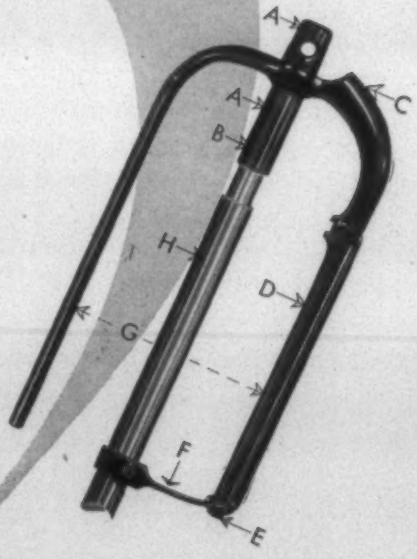

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in the contact area of the surface. Following the theoretical discussion is a description of the test set-up and the experimental procedure and results. Charts showing the relationship between temperature rise and time are included in the newsletter. Test results are compared with theory, arriving at a series of conclusions which describe the need for lubricant testing machines designed and equipped to supply accurate test data as well as allowing full control of all test variables . . . velocity, load, friction force and friction temperatures.
(Request Item No. E-45)

Alden Work Centers

An illustrated booklet is available from the Alden Systems Co. describing Alden Work Centers. This booklet contains information and application stories on automation, cost cutting methods and the latest developments in work simplification techniques at Alden. (Request Item No. E-46)

Steel Piping

Engineers, designers and layout men involved with steel piping will be interested in a data folder TDC-138, issued by the tubular products division of The Babcock & Wilcox Co. Two tables are shown on the folder. One table lists dimensional data for 16 sizes of pipe from 1/8" to 8" nominal size for 6 different weight schedules showing o.d., i.d., wall thickness and weights per ft. The other table covers A.S.T.M., A.S.M.E. specifications, showing title, grade, type and analysis for various carbon, alloy and stainless steel pipe used for high temperature, high pressure and other services. (Request Item No. E-47)

Lubrication Fittings

The Alemite Division of Stewart-Warner Corp. has available a 32-page bulletin concerning lubrication fittings. The bulletin contains illustrations of various types and sizes of fittings. Included in the literature are engineering data and specifications.
(Request Item No. E-48)

Self-Aligning Bushings

Bullein SF-86, published by the Roller Bearing Co. of America, describes its self-aligning bushing assembly. The bushing is for extremely heavy duty applications. Its use in varied machinery is illustrated in the bulletin. Engineering specifications and data are included in the 8-page publication.
(Request Item No. E-49)

Lubrication Automation

How to solve maintenance problems by making a changeover from hit-or-miss manual machine oiling to automatic lubrication is covered in detail by a 6-page illustrated reprint now offered by Bijur Lubricating Corp. Written by an applications engineer and entitled *Make Your Machine More Automatic,* it explains how such systems provide dependable performance with minimum downtime in the packaging field. A detailed inspection at a number of manufacturers provides specific methods of lubricating enclosed bearings, preventing product spoilage or contamination and keeping production at maximum levels.
(Request Item No. E-50)

Kessler Plasticizers

Kessler Chemical Co. Inc. has made available bulletins describing new plasticizers. Kesscoflex DOIS (Di-2-ethylhexyl Isosebacate) and Kesscoflex DBIS (Di-n-butyl Isosebacate) are esters which are similar in physical properties and performance to the corresponding normal sebacates and in most applications can be substituted for the latter materials with considerable reduction in cost. (Request Item No. E-51)

Non-Lubricated Bearings

Non-lubricated bearings made from carbon graphite material are the subject of a new 16-page catalog made available by the Electro-Nite Carbon Co. These bearings operate under very high temperature. They are said to be chemically inert and have overcome many maintenance problems for industry. Carbon graphite bearings in operation are illustrated in ovens, process equipment, conveyors, etc. Also included in the catalog are nomograph charts and grades and design information.
(Request Item No. E-52)

Quadruple Lift Attachment

The Yale & Towne Mfg. Co. has announced the publication of a bulletin describing the features of its quadruple lift attachment for extra high stacking with industrial lift trucks. The attachment provides for lifts up to 220" yet is designed for a minimum over-all truck height with the forks in the lowered position.
(Request Item No. E-53)

Boiler Vacuum Cleaning

The Spencer Turbine Co. has issued a 4-page bulletin describing its vacuum cleaning equipment for boiler cleaning. The bulletin covers use of both stationary and portable equipment and points up the fuel savings made possible by regular cleaning. Time-saving and dust free convenience of cleaning boiler tubes, stack base and breaching with vacuum are also highlighted. Included are illustrations and specifications on Spencer vacuum producers, soot separators and vacuum tools.
(Request Item No. E-54)

Electric-Powered Compress Truck

A new 4-page folder, illustrating and describing the first electric-powered cotton compress truck, field proven under actual operating conditions, has been published by The Elwell-Parker Electric Co. The truck, known as Model F-45T, has been designed to meet the continuous and severe handling encountered in the cotton industry. Of particular importance is its electric power which provides for 9 to 10-hour continuous operation, yet at the same time, eliminates dangerous gas fumes and fire hazards. The free literature contains nearly a dozen illustrations, many of which show the truck in operation, plus engineering drawings detailing specifications.
(Request Item No. E-55)

Barrel Pump

Milton Roy Co. has recently published Bulletin No. 1256 on its new controlled volume barrel pump. This 2-page bulletin describes the advantages of the pump in combined pumping and metering of toxic or corrosive chemicals from barrels or drums. The bulletin includes complete specifications and dimensions for handy reference. (Request Item No. E-56)

Fungitrol 50

A new technical bulletin, *Fungitrol 50 For Colorless Non-Toxic Cordage Preservation,* is available from Nuodex Products Co., a division of Heyden Newport Chemical Corp. Fungitrol 50 is a colorless, highly active fungicide for use on cellulosic materials which can be used from both water and solvent systems, Nuodex reports. Fungitrol 50 is a synergistic mixture containing zinc and is non-toxic when used for its intended applications. Nuodex also has available a data sheet on Fungitrol 50 describing uses of the new fungicide as a mildew resistant treatment for light and heavy duty fabrics.
(Request Item No. E-57)

Stainless Steel Booklet

A 40-page booklet entitled *Stainless Steel Report to the Textile Industry* is now being distributed by Allegheny Ludlum Steel Corp. The 4-color booklet gives detailed information on the textile industry including yarn manufacturing, warp preparation, dyeing, bleaching and finishing. There is a section dealing with the corrosion resistance of Allegheny Ludlum stainless steels to various media, especially those met in the textile industry. (Request Item No. E-58)

Safety Literature

The National Safety Council has made available a new one-fold leaflet and a book containing 52 talks on accident prevention. The one-fold leaflet, called *Seven Steps to Safety,* is a digest of the council's previously published 8-page booklet entitled *Plus Costs of Accidents.* The leaflet contains a most concise statement of principles of industrial safety.

The new volume entitled, *Five-Minute Safety Talks for Foreman,* comes with an outline and text suitable for either informal or scheduled training sessions. Further information and prices may be obtained from the National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill.

Serving The Textile Industry

Trumeter Co. Moves New York Quarters

The Trumeter Co. has announced that it is moving its quarters to 38 West 32nd St., New York City. The company's service department will be located at 39 West 31st St. The move will be effective June 1.

Foxboro Establishes Atlanta Service Shop

The Foxboro Co., of Foxboro, Mass., has established a service shop in Atlanta, Ga. The new shop, which is located at 3232 Roswell Rd., will stock the more frequently needed instrument supplies and replacement parts as well as provide emergency service. The company also announced that it will start construction in July of a new addition to its plant at Foxboro. The 175,000-sq.-ft. addition will provide for an expansion of productive capacity of 50%. Completion of the new facilities is scheduled for early Summer of 1958.

Stowe-Woodward Employees Share Company Profits

Stowe-Woodward Inc. of Upper Newton Falls, Mass., has presented its employees with 10% of its profits in 1956. The action is in accordance with a profit sharing retirement program initiated by the company 6 years ago. This contribution came from total profits before taxes in the largest selling year in the company's 70-year history. Contributions to individual employees were based upon earnings and length of service with the company.

Clinton Moves Atlanta Office To New Location

The division sales office of Clinton Corn Processing Co., formerly located at 161 Spring Street Bldg., Atlanta, Ga., has been moved to 504 Bona Allen Bldg., Atlanta.

Foster Machine Co. Flood-Proofs Plant

To ward off a repetition of flood damage that interrupted Foster Machine Co. production in 1956, the firm has just completed construction of a substantial dike. As a secondary line of defense to back up the protection of the new levee, the company has also equipped its plant with waterproof doors. "Although we have learned a healthy respect for the violence of our local streams in flood season," Foster management stated, "we are confident that henceforth our production schedules will be fully water-resistant."

Last year was the most active and profitable year for the company since 1951, according to the president's report at the company's annual meeting. The Foster outlook for 1957 is extremely optimistic in view of progress recorded for new machines now being readied for the industry. Mill testing of the new Model 202 automatic cone winder and the Model 66 Foster-Muschamp automatic filling winder are said to be progressing favorably.

Mill Supply Company Incorporated In S. C.

The Baker Mfg. Co. of Greenville, S. C., has been incorporated to manufacture and distribute equipment and supplies to textile mills. Offices and plant are located at 5 Ellendale Ave.—just off Buncombe Rd. The company is offering a full line of belting, check straps, harness straps, binder and box plate leathers, shuttle furs and other textile supplies. The company will also represent leading manufacturers of fiberglass, fiber, aluminum and steel trucks—and other materials handling equipment. Baker will manufacture Bamco-Peerless long draft spinning aprons. T. A. (Tom) Sizemore will represent the company in North Carolina and Virginia. W. W. Jordan will contact mills in South Carolina, Georgia and Alabama, and R. H. Patterson will handle fork trucks in South Carolina.

Union Carbide And Carbon Corp. Changes Its Name

The name of Union Carbide and Carbon Corp. has been shortened to Union Carbide Corp. It was announced that stockholders approved this change at the annual meeting of the corporation in April. The names of 3 divisions of Union Carbide have also been changed. Carbide and Carbon Chemicals Co. has become Union Carbide Chemicals Co.; Linde Air Products Co. is changing its name to Linde Co.; and Carbide and Carbon Realty Co. will be known as Union Carbide Realty Co.

American Enka To Expand To Other Fields

A program to broaden the base of operations of American Enka Corp. beyond the production of rayon and nylon yarn and staple fiber has been announced by the firm. As a part of this program, Carl R. Dolmetsch has been appointed manager of business development with responsibilities to investigate and promote commercial possibilities for the company in fields and products in which it is not presently engaged.

Sibley, Byrum, Brackett, Folk, Crosland

"CLEANING EQUIPMENT IN TEXTILE PLANTS" was the subject of a special discussion program presented April 25-26 at the North Carolina Vocational Textile School, Belmont, N. C. The program the first day centered on "Traveling Cleaner Equipment as Applied to Spinning and other Textile Machinery." Discussion the second day was devoted to "Vacuum Cleaning as Applied to Textile Machinery." Taking part in the two programs—which were attended by some 85 mill men representing 36 plants—were Leland R. Sibley, assistant sales manager, The Parks-Cramer Co., Charlotte, N. C.; E. G. Byrum Jr., Charlotte sales engineer for The Bahnson Co., Winston-Salem, N. C.; L. M. Brackett, general manager of Highland Park Mfg. Co., Charlotte, who represented the textile school's board of trustees in welcoming visitors to the program; Chris E. Folk, principal of the school; and R. B. Crosland, sales engineer from Bahnson's home office.

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

To the extent the Eisenhower budget has aroused the country to soaring civil and welfare spending, its record-breaking size has rendered it a genuine public service. The voice of business and industry has long been drowned to dangers of inflation and climbing prices as demands from pressure groups for more state aid and welfare spending have overwhelmed Congress. For the first time since the war the solid economic interests are making themselves heard, and they are saying they have had enough.

What the taxpayers have to decide, as the volume of their demand for tax cuts grows, is what they are willing to do without. In the volume of letters pouring in, denouncing high taxes and high spending, not one in a hundred suggests the type spending the home community could do without. They still want Federal aid for sewage disposal, new schoolhouses, health and social services, and crop supports.

Unquestionably Congress has a large battalion of big spenders, urging vast grants for social services, public power, and putting the government into everything it is not already in. And the end is far from in sight on some costly ventures into which the government has already been thrust. The $285 million St. Lawrence Seaway is now estimated to cost nearly $600 million; ultimately it may cost $800 million, with $1 billion more for harbors, breakwaters, deeper channels and shipping facilities.

The thing that really keeps the budget high is national defense, and the costs of past wars, which cannot be easily cut. Sharp cuts are not possible without taking risks no one is willing to take. So the real cuts in spending must be in civil public works, where, politically, it hurts most. The meat axe is aimed straight at state grants, and Federal aid for health, agriculture, airports, highways, reclamation, social services, traveling libraries, new post offices and Federal buildings. Cuts possible in these items are not likely to exceed $1 billion, even if the Senate becomes really economy-minded.

Squandering and waste, and big social service spending, goes far back into New Deal days, when Congress lost all control of spending. The legislative habit developed of letting planning "commissions" and groups do its work. Government expanded in every direction, chiefly for welfare and made work. New Dealers were clapped into new made jobs to devise and invent, and Congress became a rubber stamp. These precedents still stick; Congress does not control spending.

For 24 years the welfare groups and big spenders that flocked to Washington have been more noisy than those who wanted economy and lower taxes. They have thronged the halls of Congress, in droves of ten to 100 at a time, and picked up ready allies in A.D.A., and the ragamuffin fringes permanently quartered in the capital. This year the country's demand for lower taxes and spending is loudest, and for the first time is putting a crimp in the raucous chorus for bigger and better spending.

Senator McClellan's amendment to the proposed Civil Rights Bill would prohibit deprivation of employment to any person for want of union membership. The amendment says that "civil rights" included shall cover "the right to obtain

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1926 "IF IT'S PAPER" 1957

and keep employment regardless of membership or non-membership in a labor or trade organization," and violators would be punished by a fine of not more than $1,000, or jailed for not more than one year, or both. All inconsistent provisions of the law would be repealed.

Voluminous reports on political donations by wealthy persons, with their alleged corporate connections, are being released by a Senate committee. But this and other reports are silent on the vast outpouring of money last year by labor unions. Senator McClellan has not yet begun to dig into use of union money for political purposes, although Frank Brewster admitted, as a witness, that he used "about $500,000" to defeat a right-to-work referendum proposal in Washington last Fall.

Legislation that will require financial responsibility and strict compliance with contracts is gaining support in Congress. The vicious practices of boycotts and maintenance of "strikes" to put firms out of business, or to impose restrictions on distribution, and force workers to join a union, are in the line of probable legislative fire. This would imply bringing unions in respect to "hot cargo" practices under anti-trust laws, require sworn public fiscal accountings, and give a man a right to work whether he belongs to a union or not.

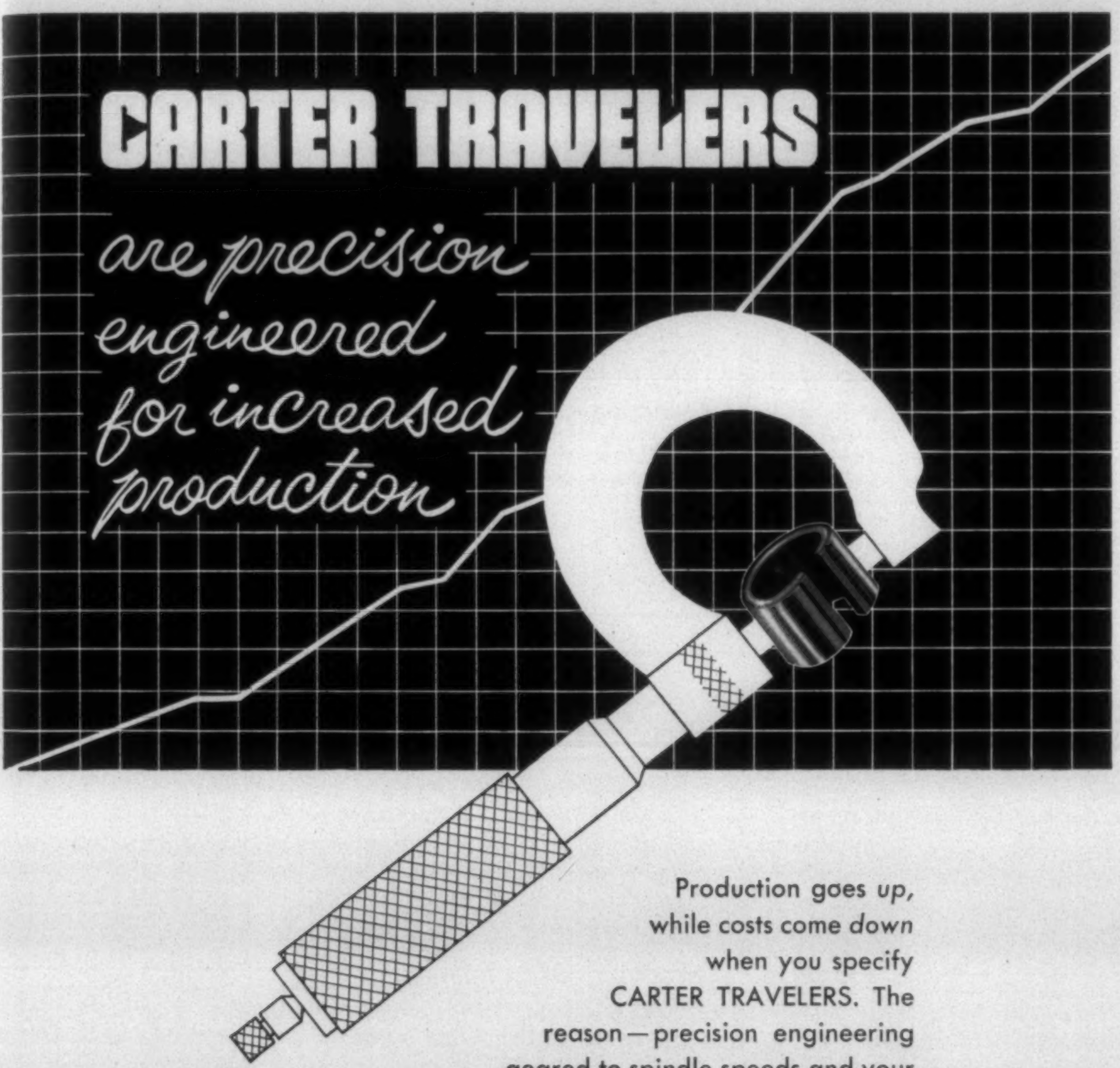
Secrecy in which union financial reports filed with the Department of Labor have been held spawned the teamsters' scandal, said House member Moss (D., Calif.). For years these reports have revealed loose handling of union funds, he said, but the department, on its own motion, drew a curtain of secrecy around them. He said the law requires all unions to report their finances, but department officials took it upon themselves to conceal the reports from the public—an open invitation to abuse and theft.

General Motors has warned the state of Michigan that its high taxes are driving plants and expansions into states with lower taxes. New taxes in contemplation in Michigan, including a corporate profits tax, can drive billions of dollars of industrial potential to other states, motor officials say. The tax crisis is precipitated by a proposed new state spending program of $411 million for next year.

The United Auto Workers will demand a four-day week, with five days' pay and increased fringe benefits, Walter Reuther says. This action is expected to be followed by other big unions with the single exception of higher fringe benefits in some cases, and to set the pattern for next year's wage negotiations. Of necessity the price of unit products would go up by 20 or 25 per cent. How far the change would go in promoting more unemployment is not clear; however, most plants cannot increase their daily work forces by 20 per cent.

Postmaster General Summerfield made clear that all postal revenues go directly into the Treasury and are not spent for mail services. His department, he said, is limited to the amount Congress grants, no matter how much postal revenues increase or decrease. "Our budget is prepared 12 months in advance," he said, "and we have to estimate that far ahead how much mail will be sent, and the cost of handling it." Thus, postal rates have little or no relation to mail costs, and higher postage is so much more money for the Treasury.

This year, Mr. Summerfield said, mail volume has exceeded expectation by three-fourths of a billion pieces. Higher wages for postal employees, voted by Congress last year, and 1.3 million new homes and 250,000 new business concerns requiring service, have greatly increased costs. The department, he said, controls only a small part of its spending. Salaries, fringe benefits and pay to railroads and airlines are fixed by other agencies. In a budget of $3.3 billion this year, the post office department has control over only about $140 million.



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textile bulletin

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TEXTILE BULLETIN is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving phases of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are theirs and not necessarily those of the editors and publishers. ¶ Circulation rates are: one year payable in advance, $1.50; two years payable in advance, $2.00; one year, Canada, $3.00; one year, other countries in Postal Union, $5.00; single copies, 25 cents. ¶ A companion monthly journal, THE KNITTER, is published by Clark Publishing Co. and devoted to the interests of the knitgoods manufacturing industry.

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A Big Mill Customer Has Allergy To Obsolescence

It is something which probably doesn't cross the mind often of the average person in textiles—and, frankly, we wouldn't be mentioning it now, if some rather interesting statistics hadn't come our way the other day—but the fact remains that the biggest housekeeping job in the world is done by American hotels and that every year in the United States they buy an estimated $100,000,000 worth of textiles.

It's rather staggering, when you stop to think of it. The hotels, for instance, every year buy nearly 14 million towels, six million sheets and five million pillow cases. The towels alone, laid end-to-end, would stretch around the world's equator more than four times. And on an average day, the hotels send to the laundry more than four million towels and two million sheets. And they know, for instance, that each sheet will average 200 launderings before it becomes unusable. It is also revealing that most hotels keep on hand three times as much linen as their normal daily requirement—to allow for one set in the guest rooms, one set in the linen room and a third set in the laundry.

The business of housekeeping is a major problem—and a major expenditure—of the American hotel industry. Each day America's hotels have to clean a floor space estimated at 652,500,000 square feet. This means the housekeeping chore of maintenance for 14,988 acres of floor space, or 23.4 square miles. There are some 14,000 hotels in the nation, ranging in size from ten to 3,000 rooms. The average hotel has 96 rooms. Seventy per cent have 100 rooms or less; 24 per cent have from 100 to 299 rooms; four per cent have from 300 to 499 rooms; and only two per cent have more than 500 rooms.

These statistics come from the American Hotel Association. But to get away from statistics, it is rather surprising, too, to stop and think just what has happened to the hotel industry since the early days of the republic and how it has evolved into what it is today, the nation's seventh largest service industry. America's first hotels were seaport inns or converted farmhouses along stagecoach routes. This picture remained largely unchanged for the first half century of U. S. independence. A single room? There was no such animal. All beds were big enough to accommodate at least two people, and frequently as many as three beds were in one room. The innkeeper did not consider his house filled until every bed was yielding double income.

In the hotel business, yesterday's magnificence is today's junk. And in many ways the impact of the hotel industry upon the economy constitutes a rather accurate barometer of the national prosperity. It is probably a little known fact that immediately after World War II, hotels made plans for a $1.6 billion program of modernization and rehabilitation and currently over $300 million a year is being spent for new hotels and modernization, which involves all manner of new facilities, including many designed for the motor traveller, such as separate motor entrances and registration desks.

But we began by referring to the connection or relationship of hotels to textiles. Those staggering statistics mentioned a little earlier are only the beginning of a story. It may come somewhat as a surprise to many in some fields of textiles to know that a hotel man can easily buy his necessary supplies of textiles with confidence, ease and safety. That's a result of a small part of the work of the American Hotel Association's research and service department, which among countless other things, maintains a program of basic and applied research into consumer prod-

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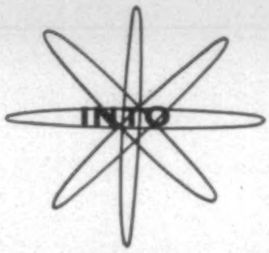

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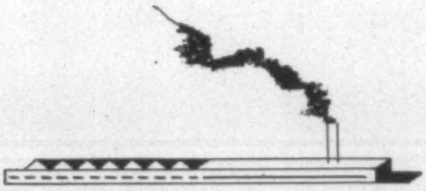

Here's an Example . . . A Sonoco customer was having difficulty with the cone absorbing oil from the yarn. This made the yarn, next to the cone, brittle and stiff and hard to work. Sonoco was asked to make a cone with an oil barrier to prevent this condition.

After exhaustive research and tests, Sonoco furnished the customer with a special Unitex surfaced cone. The customer reported, "This cone completely eliminates the oil absorption problem. An oil extraction, from yarn that was aged on these cones, shows that there is no deficiency of oil in the yarn that lies next to the cone . . . at 1000 yards per minute, this yarn shows no tendency to slough off at this speed."

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ucts. As a consequence, of course, the traveling public is safer, is more comfortable, and sees the results in more attractive rooms where beauty and utility will endure year after year.

Textiles are cited as merely one example because they are such a large part of the world's biggest housekeeping job. The American Hotel Association publishes the *Hotel Textile Purchasing Guide* by which the hotel man can assure himself of at least minimum quality in the textiles he buys. He can do this simply by specifying the appropriate L24 American Standard. The American Standard L24 covers nearly 40 of the most commonly used textile items in hotels, and it took nearly three years to develop the American Standard L24 in co-operation with major manufacturers and suppliers of hotel textiles.

According to a new booklet recently published by the American Hotel Association called *The Hotel Story*, containing an interesting array of facts, figures are cited to show that while the inflated dollar, with its shrinking purchasing power, has pushed hotel room rates up between 150 and 160 per cent since 1935, it has at the same time boosted hotel operating costs to an average of between 160 and 170 per cent. Yet the hotel financial picture is sound. The uninitiated might wonder why.

It's mainly due to a greater operating efficiency and the use of professionally trained operators and personnel. Hotel ownership and management learned some rather valuable lessons after 20 years of successive depression, wartime controls and post-war inflation. Better service to the public and the wide use of research are two of the major factors that have contributed to the sounder economic shape of this important American service industry. For instance, career hotel men—and women—now can get a degree in hotel administration, or specialized training, at any number of the leading institutions of higher learning over the nation. Additionally, strong hotel vocational courses are being constantly added to high school and trade school curricula everywhere.

Innovations are numerous. Among them is the Universal Travelcard, the hotel industry's own credit card, to mention only one of many. Recent years have seen some measure of the same thing overtake most other U. S. industries. That is, there has tended to come into the mainstream of American business and industry a realization of the benefits to everyone from a pooling of brains and efforts. Still, there are probably some lessons which some other segments of the nation's industry could advantageously learn or absorb from a service industry which performs one of the most complex jobs in the world.

But the point we started out to make and now repeat is that it's seldom realized just how big a textile customer the hotel industry is. Towels, sheets and pillow cases, of course, are the big items; but there are carpeting, curtains and countless others. The laundry bill of the industry alone runs well over $50 million a year.

Maid-of-Cotton

Miss Helen Landon of Huntingdon, Tennessee, was selected Maid-of-Cotton for 1957. Textile manufacturers select Burk-Schier Wet Processing Agents for dyeing and finishing yarns and fabrics made of cotton.

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Just Around The Corner?

Recently published disclosures and comment, a good deal of the latter being speculative in nature, would lead one to suppose that the advent of a practical and marketable shuttleless loom might not really be so far off after all. The idea of a loom minus the mechanics of the picking motion is one which has intrigued inventive minds, and the textile industry in general, for several decades.

The most significant disclosure in recent time is that the Draper Corp. actually has one of these looms undergoing mill trial. This announcement has stimulated a good deal of speculation about how the loom works, but obviously Draper can hardly be expected to reveal the constructional and operational details until a proper evaluation can be made of the machine's trial run under mill operating conditions.

The mere fact that such a machine has been developed to the point of mill trial is a significant milestone in the history of the American textile machinery manufacturing industry, which might actually be said to have had its beginning back in 1816 when the first U. S. textile patent was granted Ira Draper for his self-acting temple. This device enabled a weaver to tend two looms instead of one, and thus effected a 100 per cent increase in the weaver's productivity.

Elsewhere in the field, Dr. E. R. Laithwaite, scientist-engineer of Manchester University in England, has been engaged for some time with experiments to free the loom of mechanical requirements of the picking motion through the electro-magnetic propulsion of shuttles. He discussed his experimental work in a recent lecture before the Textile Institute in England.

For one thing, Dr. Laithwaite uses a linear induction motor to produce motion without any contact with the moving part. This seeming phenomenon is accomplished through the use of two circuits, one set of coils producing a traveling field in one direction and the other set creating the motion in the other direction. Some "bugs" are still to be overcome, it is reported, but an experimental model is being built incorporating Dr. Laithwaite's ideas and concepts. This experimental model will be designed for the weaving of fabrics only a few inches wide.

Whatever the progress up until now, quite obviously the so-called shuttleless loom can be described best as being in the developmental stage. Still it's interesting to speculate that the year 1957 may go down in history as the birthdate of the shuttleless loom.

The Real Fiber Competition

Certainly it is not surprising that so much ado is constantly made over the competition of cotton and the synthetics or wool and the synthetics. The man-made fibers are steadily becoming a larger part of the total fiber picture and the situation is of no small concern to those whose interests are directly involved or affected. With foresight the cotton interests banded together some years ago for common political and promotional reasons, although some of the interests of some of the cotton industry segments may basically differ.

In the developing situation there is often an inclination to overlook the area of the real stiff fiber competition. The acrylic fibers are a rapidly growing field. A most intensive battle for markets is developing among them, and it's apparently only a beginning, for some of these new fibers won't reach full scale commercial production for a year or so yet. A few others are still in the experimental stage. And everywhere in the world research laboratories are literally burning the midnight oil to produce new, exciting and different textile fibers out of test tubes.

In the fight for a share of the market, the newer acrylic fibers, it begins to appear, will stress certain end uses and also claims to superior qualities such as improved dyeability, color fastness and resistance to shrinkage. It is possible to create a large number of these fibers by chemical modification, but each requires a rather large investment in research, production and promotion. Some of the newest additions to the chemical fiber family, for instance, have an acrylic base but a nitrile alloy is added, which results in some new characteristics.

Some casualties may result in the competitive merchandising battle which begins to loom larger, but the reason so many of the chemical companies are entering the field appears to be the potential growth factor, as market surveys continue to show that the various acrylic-like fibers fit into the trend toward easy to care for fabrics and apparel. And there is also the factor that man-made fibers have become cheaper as volume acceptance is attained.

In fact everything seems to point to the prospect that increasing gains may be anticipated by the man-made fibers in all end-uses. And Du Pont technologists have recently forecast commercial production within a year of a new kind of paper made from some of the non-cellulosic chemical fibers. They say, however, there will be little encroachment upon existing paper fields, but rather that the unique properties of the synthetic fiber papers will confine their use largely to the specialty paper markets and to those markets now held by woven fabrics. They are called "paper" largely because they are made on conventional paper-making machinery.

TEXTILE INDUSTRY SCHEDULE

— 1957 —

May 28-29 (Tu-W)—Industry-wide market research conference (sponsored by National Cotton Council of America), Washington, D. C.

May 30-June 1 (Th-Sa)—Annual meeting, **SOUTH CAROLINA TEXTILE MFRS. ASSN.**, The Cloister, Sea Island, Ga.

June 7-9 (F-Su)—Annual outing, **PIEDMONT SEC., A.A.T.C.C.**, Mayview Manor, Blowing Rock, N. C.

June 7-9 (F-Su)—Annual outing, **SOUTHEASTERN SEC., A.A.T.C.C.**, Radium Springs, Ga.

June 20-22 (Th-Sa)—Annual convention, **SOUTHERN TEXTILE ASSN.**, Ocean Forest Hotel, Myrtle Beach, S. C.

June 21-22 (F-Sa)—Annual meeting, **SOUTH CENTRAL SEC., A.A.T.C.C.**, Lookout Mountain, Tenn.

Sept. 4-6 (W-F)—Fall meeting, **THE FIBER SOCIETY** (joint meeting with British Textile Institute), Statler Hotel, Boston, Mass.

Sept. 12-13 (Th-F)—Annual meeting, **CARDED YARN ASSN.**, The Cloister, Sea Island, Ga.

Sept. 14 (Sa)—**SOUTHEASTERN SEC., A.A.T.C.C.**, Harmony Club, Columbus, Ga.

*Sept. 19-20 (Th-F)—Fall meeting, **TEXTILE QUALITY CONTROL ASSOCIATION**, Barringer Hotel, Charlotte, N. C.

Sept. 20 (F)—**SOUTH CENTRAL SEC., A.A.T.C.C.**, Hotel Patton, Chattanooga, Tenn.

Sept. 27-28 (F-Sa)—**COMBED YARN SPINNERS ASSN.**, The Cloister, Sea Island, Ga.

Sept. 28 (Sa)—**PIEDMONT SEC., A.A.T.C.C.**, Hotel Barringer, Charlotte, N. C.

*Sept. 28 (Sa)—Fall meeting, **TEXTILE OPERATING EXECUTIVES OF GEORGIA**, Georgia Tech, Atlanta, Ga.

Oct. 2-3 (W-Th)—**CHEMICAL FINISHING CONFERENCE** (sponsored by National Cotton Council), Hotel Statler, Washington, D. C.

Oct. 10-11 (Th-F)—Fall meeting, **SOUTHERN TEXTILE METHODS AND STANDARDS ASSN.**, The Clemson House, Clemson, S. C.

*Oct. 12 (Sa)—Fall meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES**, Thach Auditorium, Auburn, Ala.

Nov. 14-16 (Th-Sa)—National convention, **AMERICAN ASSN. of TEXTILE CHEMISTS & COLORISTS**, Hotel Statler, Boston, Mass.

Dec. 7 (Sa)—**SOUTHEASTERN SEC., A.A.T.C.C.**, Dinkler Plaza Hotel, Atlanta, Ga.

— 1958 —

Jan. 27-28 (M-Tu)—Annual meeting, **NATIONAL COTTON COUNCIL OF AMERICA**, Phoenix, Ariz.

Apr. 10-12 (Th-Sa)—Annual convention, **AMERICAN COTTON MFRS. INSTITUTE**, Hollywood Beach Hotel, Hollywood, Fla.

May 26-29 (M-Th)—**NATIONAL PACKAGING CONFERENCE AND EXPOSITION** (sponsored by American Management Assn.), New York Coliseum, New York City.

June 19-21 (Th-Sa)—Annual convention, **SOUTHERN TEXTILE ASSN.**, The Grove Park, Asheville, N. C.

Oct. 6-10 (M-F)—**SOUTHERN TEXTILE EXPOSITION**, Textile Hall, Greenville, S. C.

‡Fall—National convention, **AMERICAN ASSN. OF TEXTILE CHEMISTS & COLORISTS**, Conrad Hilton Hotel, Chicago, Ill.

(M) Monday; (Tu) Tuesday; (W) Wednesday; (Th) Thursday; (F) Friday; (Sa) Saturday

**Listed for the first time this month.* ‡*Tentative listing.* †*Changed or corrected from previous issue.*

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FOR THE TEXTILE INDUSTRY

textile bulletin

VOL. 83 MAY 1957 NO. 5

The Outlook For Textiles IS GOOD

By BASIL D. BROWDER, Executive Vice-President, Dan River Mills, Danville, Va.

It is not a mere case of wishful thinking to say that the future for the cotton textile industry looks bright. A number of encouraging aspects are to be considered, and planned for. In the following paper, presented at the Spring meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association, Mr. Browder calls attention to some of these factors. The S.T.A. meeting, attended by some 350 mill men and suppliers, was held Saturday, April 13, in the Hylton Building, Dan River Mills, Danville, Va.

IT occurs to me that this is a pertinent moment to take a hard look at our industry in view of the uncertainties about it expressed on all sides. For several months the market has been slow. Prices of many fabrics, including some of the very important constructions, are below the level of a year ago despite the fact that costs of supplies have increased and a general wage increase has lifted labor costs throughout most of the Southern textile industry. Curtailment of operating schedules, with the burden it places on employees and the difficulty it brings in maintaining manufacturing efficiency, has become commonplace. Certainly our situation at this particular time could hardly be described as encouraging.

In an article in *Forbes Magazine* earlier this year it was charged that leaders of the textile industry display a tendency to deal either in wild optimism or unwarranted pessimism, that they seldom find a middle ground. There may be a modicum of truth in this complaint, but be that as it may there has been too little in the past several years to crow about optimistically, and too much to cry about, and with justification.

What are some of the basic problems of our industry? Those of you who have spent many years in textiles are familiar with them, but they should nevertheless be pinpointed again because they show *what* we must overcome, if not the *"how"* of accomplishing the task. Let me delineate four of these underlying problems for you.

Number one, our industry has been losing ground in the battle for its traditional share of the consumer dollar. It is easy to lose sight of this fact because the increase in prices since the end of World War II and the higher dollar volume of sales hide it from view. Yet it is the fact, and it has significant implications. It means that, while the total pie of consumer spending is increasing, our industry is getting a smaller slice of the bigger pie. It means that other manufacturing industries—auto, appliances and the like—and service industries are siphoning off dollars that, in the traditional pattern of consumer spending, would have flowed to us. The result, of course, is that the textile industry is not enjoying the growth that is so obviously taking place in other sectors of our economy.

In 1945, 13.5 per cent of consumer spending was for clothing and shoes. Ten years later, this percentage had declined to 8.1 per cent, a decline exceeded oddly enough, and by circumstances I am totally unable to explain, in the shift of spending away from alcoholic beverages. In 1955, total consumer expenditures were 250 billion. If consumers had simply maintained the same pattern of spending for clothes and shoes in 1955 as they had in 1945, sales of these items would have been larger by billions of dollars. It does not take much imagination to visualize what this could have meant to our industry in terms of greater production, greater sales and more adequate prices.

It is true that 1945 was an abnormal year, and that clothing expenditures commanded a higher percentage of spending than had been true in the decade of the 30s. But during the very difficult years of 1930-1939, clothing expenditures represented about 11 per cent of consumer spending, and if you go further back, the percentage was even higher.

Number two, the ancient curse of our industry—and one that is still with us—is overproduction accompanied by grossly inadequate prices. Time and again over the years, the textile industry has endured set-backs because its massive production capacity has out-run the ability of the market to digest the output. The result is a sort of inventory recession, and it is not alleviated until production and demand are brought back into balance. Unfortunately, it has been too often true that corrective measures within the industry are taken too little and too late, and the recession runs its course until the glut of goods gradually vanishes. This kind of problem is not limited to the textile industry by any means, but we seem especially prone to the disease.

Number three, and this is largely the outgrowth of the two problems I have already discussed, our industry has generally not earned an adequate return on the sales dollar nor on the stockholders' investment. There have been exceptions, notably in the immedate post-World War II years, when totally abnormal conditions existed, but by and large it is true for what can loosely be called "normal" years. If you want evidence of this, simply look at the prices of textile stocks. In some of the best-managed companies they sell well below book value, and in some instances the price is barely above the per-share value of current assets.

There is additional evidence. In 1955 manufacturing companies on the average earned more than five cents after taxes on each sales dollar—scarcely a spectacular record, but textile companies on the average earned less than half of that. Or compare net earnings after taxes with stockholders' equity. For the average manufacturing company net profit was equal to more than 12 per cent of the stockholders' equity; for textile companies, it was less than six per cent.

The number four problem—and this again is the outgrowth of the others I have mentioned—our industry is not able to maintain its plants in satisfactory condition by reinvesting earnings. Monies set aside for depreciation, if fully reinvested in new and improved equipment, will not keep textile plants modernized. Depreciation, after all, is based on the amount spent for particular machines at the time they were purchased. If they were purchased 20 years ago, or ten years ago, or even five years ago, their cost was far below what it would require to buy similar machines for replacement. Therefore, allowed depreciation does not provide the funds necessary for replacement. Additional funds must come from somewhere and should come from earnings. But—and here we go back to the problem of an inadequate return—if the earnings are not there in the first place, they cannot be spent to modernize plants at the pace at which they should be modernized.

Well, that's enough of problems. They are important, they are basic, and they are extremely difficult to solve. The best minds in the textile industry are grappling with them to develop long-range solutions. They are problems that cannot be worked out by ignoring them, by forcing them into the background.

Yet all is not black. American industry is justly famed for its ingenuity in doing what is difficult and surmounting what appears to be impossible. The textile industry has its share of that kind of ingenuity. Moreover, there are factors at work that could and should improve the industry's prospects for the long term. I would like to highlight several of these factors for you.

Growing National Economy

First, as I have already indicated, our national economy is growing apace. As it grows so do the nation's living standards. Personal consumption expenditures in 1955 at a level of $250 billion were almost double what they were 25 years ago, after allowing for increases in the level of prices. This means that the American people are demanding more and better goods, and more and more people have increased incomes to support their buying desires. Of course, the continuing and spectacular growth of our economy may confound the Communists and upset their timetable, yet as of now, the experts on these matters expect to see our economy continue to expand. As a matter of interest, reliable estimates of consumer expenditures in 1965 place them at $400 billion, up an average of $15 billion a year. This will help the textile industry.

Second, population is up. In the past 25 years population in the United States has increased by 42 million, or an average of almost 8½ million for each five-year period. It comes as no surprise that the precipitate increase in population figures applies largely to children and young people, good customers today for textile apparel but sure to be better ones in the future. Five years from now there will be 15 million female customers in the age brackets from ten to 19 years. What a delightful prospect to think of stimulating and then satisfying the clothing desires of that many teenage girls!

Productive Capacity Down

Third, the amount of textile machinery in operation has decreased—down by 25 per cent in the past 20 years. Last year the industry had to operate at 91 per cent capacity to meet demand. The attrition in the industry that has seen mills go out of business and machinery decrease is having the effect of bringing productive capacity closer in line with demand. This development, in the larger view, will help the industry, harsh as the treatment may be to the marginal mills that go out of existence and to the employees who look to those mills for their livelihood. But there can be no question that a better balance between production and demand will help the textile industry and perhaps lead to expansion, reversing the trend of recent years.

Fourth, the American mode of living is changing, sparked by the flight to surburbia. Living as most of us do in modest-sized communities, we may not have realized that in large metropolitan centers the dream of a home in the relatively green and relaxed acres of the suburbs has become a reality to hundreds of thousands of families in search of a better way of life.

Make no mistake, the American way of life has changed, and for most of our citizens it has changed for the better. Think of the new emphasis on leisure, recreation, sports and just plain fun that has resulted from greater prosperity, shorter work weeks and longer vacations. Think of the changes this kind of living has produced in the types of apparel people buy. Most significant has been the trend toward casual, informal clothes, and a greater specialization in wardrobes.

If this trend continues, and there is every indication that it will, it opens up vast new opportunities that can be exploited by a creative textile industry that still has plenty to learn about promoting its products and upgrading consumer tastes.

Fifth, and still not clear in its ultimate effect on the pattern of operation in our industry, is the trend of the past few years toward consolidation and merger with the aim of greater product diversification. For years we have looked with envy at the automobile and electrical machinery manufacturers and at the makers of synthetic fibers and other industries where a relatively small number of companies have held dominant positions and thus seem to have contributed stability to operations within the industry. Despite the giant push toward big organizations in our own industry, we are still a long way from having a big three or a big six in the sense they exist in auto and steel. Yet it is to be hoped that this important development will contribute to a more stable operation less burdened by the cyclical ups and downs we have bemoaned in the past.

Back at the beginning I suggested it was an appropriate time to take a hard look at our industry, and I hope I have accomplished that. What is the picture we see? Is it of an industry beset with great and persistent problems, yet beckoned by great opportunity. Which way shall we go—limp along with the problems, or shoot ahead to new horizons in pursuit of the opportunity?

Many of you have heard a little about the problem of Japanese competition and the threat it presents to domestic manufacturers. I mention it for one reason only—to remind you that in the struggle for understanding, for some rule of reason, on this matter of Japanese imports, the various segments of the industry joined hands, forgot their petty differences, and fought and worked together for common interest. Essentially this was a defensive action. In the future we must take the offensive if we are to find this new horizon, and we must take the offensive together. We must join hands and work with each other toward common industry objectives with the same cohesiveness and determination that characterized our drive for sanity on textile imports, and we must be about it right now. If we are capable of that, then we could feel we were on the road to that bright future toward which opportunity beckons.

One final observation. Most of us are not in positions where single-handedly we can make decisions that shake the industry, so the question might arise "What can I do?" I would answer this way. The least you can do is to do better. There is not one of us who cannot give a little more of his brains and energy, and thereby do a little better job—better on quality, better on cost, better on employee relations, better on control of waste, better on maintenance of machinery, and on down the line of our responsibilities. Remember that we are competing not only with each other, not only with other textile companies. We are competing with everybody in every industry, every service organization which is wooing the customer for his business and that all-important dollar. In that competition, just plain good is not enough. We have to be better.

What Does It Take To Have An Effective Waste Control Program?

— STAFF PREPARED —

The following is not a new and revolutionary system for effectively controlling waste in the mill. But it is a tried and true method offering a few practical ideas that could be adopted by any plant.

TO be fully effective, the waste control system must be a precise blend of good operating procedure, technical knowledge, human relations, effective supervision, complete agreement and customer acceptance of the product. These conditions are, by no means, easily met. However, rewards for having an effective waste control system, depending on existing conditions, may be staggering when fully comprehended and might fire the imagination of the modern management and operating group. This offering is being done, not as a guide for the *only* way to get this job done, but as a guide for *one* way to get it done.

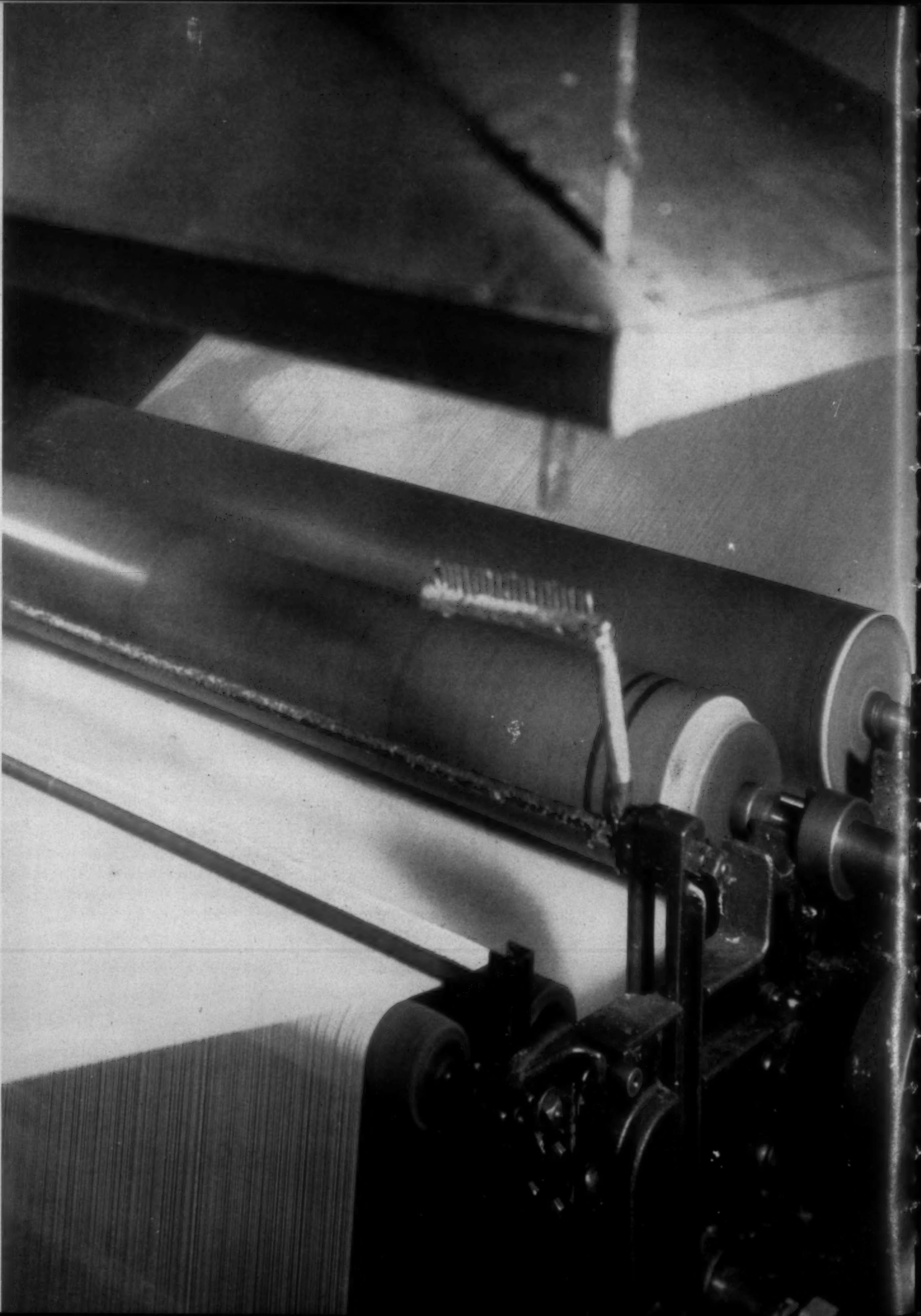
Basically, the object of the waste control system is not the elimination of waste in the cotton mill. Of course, this is a foolish idea since there is an unavoidable amount of waste in raw cotton or any other natural fiber. These undesirable components must be removed before the various processing devices can deliver a yarn of acceptable quality. Waste control is the maintenance of standard percentages removed from the total amount processed, within predetermined tolerances.

Establishing Standards

The determination of standard percentages of waste to be removed by each individual process is the result of copious testing. In fact, this determination is so complicated that no specific mention will be made, here, of the methods involved. Suffice it to say that standard waste determination must first be made through testing methods and then proved to be realistic by thorough examination by everyone who is concerned either directly or indirectly with the operating unit.

To prove a waste standard realistic, technical or control personnel must find out if all equipment, of like kind, is capable of processing the stock within the standard. Many conditions may exist which absolutely prohibit a machine, or some machines within a group, from holding to a waste standard which is believed correct for the whole group. Some of these conditions are as follows: (1) odd beater speeds, defective exhaust piping, worn screen leathers, broken screens, missing grid bars, improper grid bar settings, wrong production gearing, worn belting, improper fan speeds, condition of fan blades and many other things on pickers; (2) worn or defective parts, bad belting, improper production rates, wrong lickerin or doffer speeds, improper settings, badly set or missing grid bars, odd flat speeds and many, many other things on cards.

Cards and pickers can be deceptive, indeed even mys-



Why Dayco Slasher Rolls give faster, lower cost slashing

Mill after mill has increased slashing speeds, reduced costs and produced more uniformly sized warp yarns by using Dayco Thoro-Size Slasher Rolls in *both* front and back roll positions.

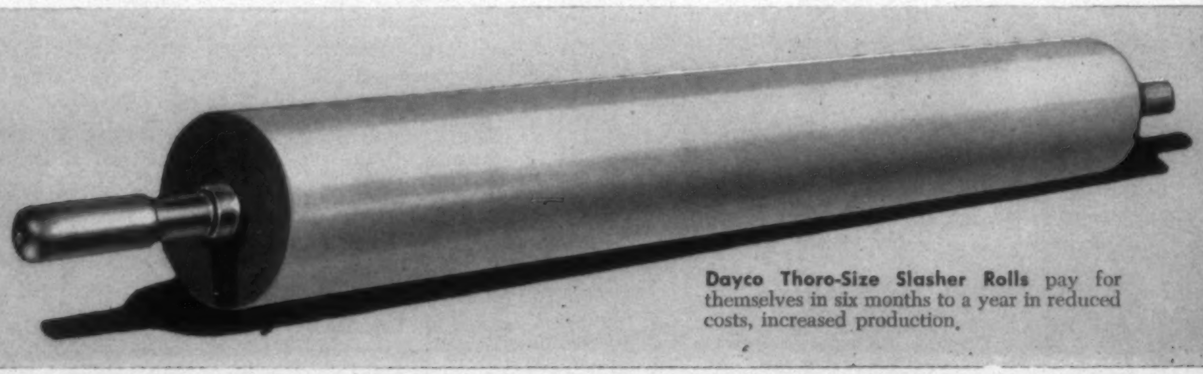
In test after actual test, Dayco Rolls proved they give more even size pick-up. That's because they're available in a finish to meet your exact sizing requirements.

Dayco Rolls meter size more accurately because they have the finish you need plus the "perfect cushion" provided by special synthetic Dayco compounds.

These two factors—improved size pick-up, and control of size within desired limits—permit most mills to increase slasher speeds remarkably . . . some as much as 40-45%.

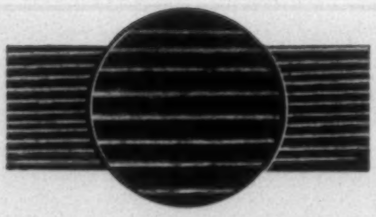
Most important, Dayco Slasher Rolls eliminate the material costs, slasher downtime and labor required to maintain blankets. In addition, more precise metering of size results in considerable savings in starch costs. And, Dayco Slasher Rolls pay for themselves in reduced costs within six months to a year.

The result of more than eleven years of research, Dayco Thoro-Size Slasher Rolls are unaffected by oils or chemicals, retain their resiliency for long periods of time, and can be easily resurfaced for double and triple service life.

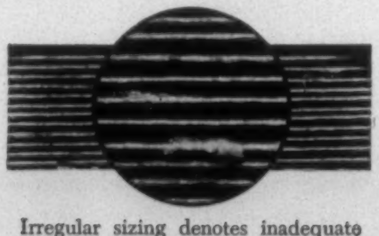


Dayco Thoro-Size Slasher Rolls pay for themselves in six months to a year in reduced costs, increased production.

Your Dayco representative will stop in to see you soon. Ask him for details on how Dayco Thoro-Size Slasher Rolls can help you step up slasher speeds, get more uniform yarn and cut maintenance costs. Or write The Dayton Rubber Co., Textile Division, 401 S. C. National Bank Building, Greenville, South Carolina.



Clean, uniform sizing proves superior performance of Dayco slasher rolls



Irregular sizing denotes inadequate control of ordinary slasher rolls

© D.R. 1957

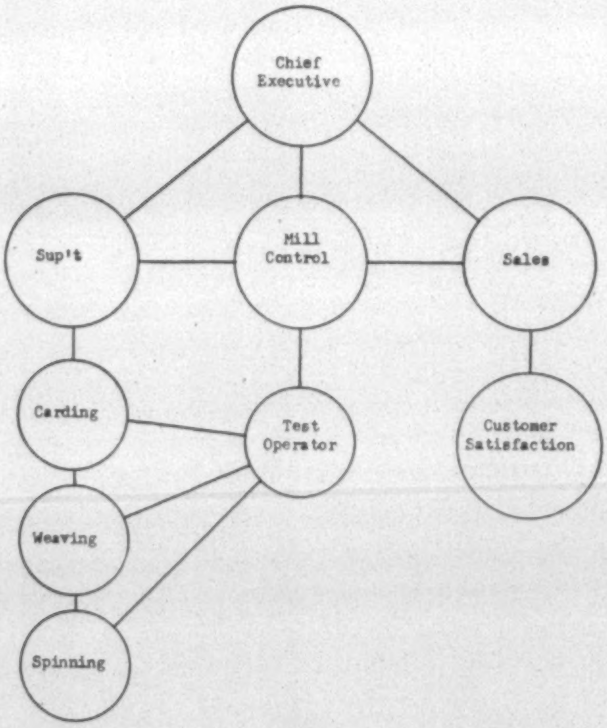
Dayton Rubber

Dayco and Thorobred Textile Products for Better Spinning and Weaving terious, at certain times. However, more than one real authority in the field of testing and control work has said that the secret to effective testing and control is the maintenance of the same standards and conditions for all machines in a given group. Therefore the standard speed, etc., condition must be met before a standard waste percentage can be proved realistic. In reality, the standard speed, etc., condition must be met before a standard waste percentage can be determined.

Group Effort

When technical personnel have completed their investigations, the standards which have been set are submitted to the operating group, second hands, overseers and superintendent. These are the people who must make the waste program work. It is right and proper that they should have the opportunity to express opinions on each phase of the program. If the program is to work, it can not be crammed down anyone's throat. In the majority of cases, technical personnel are not really experienced enough in the technical aspects of all machinery since their jobs carry them to each corner of all departments.

The control program's supervisor, superintendent and the overseer should meet, as equal partners in this job, to thoroughly thrash out any problems which may arise concerning the setting of the waste standard. Each man's opinion must be respected by the others. Agreement must be reached between the three. None of the men involved should have the authority to say, "Well, that's the way it is. That's going to be it. And, that's that. Now if either of you don't like it, there is a barefooted man outside the gate who wants your job."



This chart shows lines of responsibility in one method of operation of a waste control program. The mill control has direct lines to the chief executive and, therefore, can call a spade a spade without fear of reprisal. Test operators first report off-standard waste conditions to departmental supervisors. If for any reason, the condition is not corrected the test operator reports back to the mill control supervisor, who in turn takes the off-standard condition to the superintendent. If the condition is still not corrected it is reported directly to the chief executive. Of course, the lines of responsibility work both ways.

When the waste standards are completely and wholeheartedly agreed upon by the operating group, samples of the product, be it yarn or fabric, should be submitted to the person or selling agency charged with the responsibility of merchandising. Sales must determine whether the product which is made under these conditions is good enough, too good or just right. By removing too much waste from stock which is going into a relatively low-end product, the mill can waste control itself right out of a profit just as easily as it can waste control itself into very fine savings. These are questions which the majority of operating personnel are not equipped to answer.

Opinions of the sales department should be honored and will be valid, if rendered in an unbiased manner. However, when problems arise which cannot be satisfactorily arbitrated between the operating and sales groups, top management should be called upon for a decision. This is right and proper because a decision, as such, is something that is made only when the facts of the matter do not readily present a solution.

Operation Of The Program

Assuming that the standard waste percentages are set and acceptable as being realistic by all persons, the next consideration is the actual operation of the program. The supervision of the technical personnel, who do the actual testing, should be removed from the jurisdiction of the mill's operating group. This is essential if the standards thus set are to be strictly enforced within their prescribed limits. The waste control program's supervisor should be held accountable and responsible only to management. His reporting system should follow the normal chain of command. He should report a condition which is not compatible with the standard first to the departmental supervisor. His next stop, if the sub-standard condition is not corrected, should be the mill's superintendent. If his second report is still not corrected, for whatever reason, the waste control supervisor should have access to management.

This type reporting system will prevent one person or one set of conditions from keeping the waste program workable. The failure to correct a sub-standard condition may be due to bullheadedness on some person's part or insufficient authority on the lower levels to make large capital expenditures. In either event, the matter should go right up to the management level, if necessary, for final settlement.

The operating supervisor's position in the waste control program is critical. He is the man who, in the final analysis, will make or break the program. His job will be to constantly train the people in his department. He will have to sell the program, and its merits. The operating supervisor must keep accurate records of waste weighings. He must be active in leading the fight against unnecessary waste being made. He must push housekeeping to the fullest extent. He must talk, train, sell—plead if necessary—in the fight against excessive waste.

An effective liaison between the operating group and the sales group should be set-up and maintained. This is done in order to assure a constant quality of finished product in whatever degree found to be necessary for merchandising. In months following the original sales group approval of the product, the cotton's characteristics may change, thus changing the wastes involved. The waste control program should be flexible enough to allow changes in standards when required by changes in raw product characteristics. This is simply a blend of rigidly adhering to the limits of a standard but being sensible enough to realize that changes in the standard may sometimes be necessary.

Danger Points

There are many pitfalls which can wreck a well conceived waste control program. For instance, suppose standards are set too tight on card flat strips. The savings, on paper, look wonderful, but the card grinder cannot seem to get all the cards into the limits of the standard. If the situation is ignored, one phase of the program has broken down and in a short period the rest of the program will follow. If the situation is not ignored and someone insists on closer flat settings than possible, then damaged card clothing is quite likely. Of course, this kills the savings expected and diminishes the desirability of the control program.

Suppose the standards set are not too tight, from a mechanical viewpoint, but upgrade the quality of the finished product too much. The mill would be taking out waste to which, actually, the customer has no objection. The price of waste being considerably lower than the price of the finished product, a false economy is obvious and the desirability of the waste program diminishes.

Another pitfall to be avoided is the setting of waste standards which are too loose. The quality of the finished product may not be noticeably changed, but the installation of the waste program will fail to produce recognizable savings. The failure to produce savings will diminish the value of the waste control program rapidly.

Failure To Follow Up

However, the most inexcusable and disastrous pitfall which can wreck a waste control program is failure to follow-up on good standards. This is strictly a human failure and is probably more frequent than the previously mentioned troubles. Failure to follow-up may be attributed to any of the individuals involved in the program. The overseer may not really promote the idea of cutting unnecessary waste and controlling the balance. The waste control program supervisor may not energetically pursue his tasks in holding the limits on any or all standards. The superintendent may not be insistant enough in encouraging his subordinates to hold the limits of the standards set. And, finally, the management may fail to follow-up by not heeding a justified final call made by the supervisor.

Controlling waste can reap tremendous savings in money. However, it is by no means easy and requires a painstaking, deliberate approach to be fully effective.

A Manual For Testing Procedures

By GUS GUGGENHEIM, Associate Editor

This series, which was started last Fall, is continued with a discussion of some tests which are run on spinning room equipment. The purpose of the series is simply to show what is being done or can be done through use of test procedures on various equipment and processes in the mill.

THE operational performance of warp and filling spinning frames is easily measured or described by use of the idle spindles test. This test proves useful particularly when records are kept on past results and the records are put into graphical form. Conditions such as excessively long dry periods of weather, entrance of new crop or other different types of cotton, placing in operation of new or modified equipment, failing of preparatory processes and others which materially affect the running characteristics of the spinning frame will be readily apparent in the graph of the idle spindles test results.

The operation of the test is very simple and requires no special talent. No equipment is necessary; however, it is helpful if the test operator has a small hand counter. The test operator merely walks the spinner's alleys and counts the number of spindles which are not producing yarn regardless of reason. The tester's main interest is determining the number of ends which are down. However, if he should note an excessively high frequency of ends down in a particular area of the room, he should report immediately to the spinning room supervisor.

In determining the time of day and area to be tested, it is well to try to test each section of the spinning room during various periods of different days of the week. A more accurate picture of the running efficiency is found if the testing periods are staggered.

Only a simple calculation is necessary to place the raw test results into a more usable form. If 100 non-producing spindles are counted in an area containing 10,000 spindles, the area is reported to be running one per cent idle spindles. This conclusion is so obvious that it needs no further explanation.

The setting of limits of idle spindle percentages is entirely a local matter. The running characteristics of the frame, the cotton, the count and the twist are the determining factors. It is most likely that the warp and filling will have different limits. The allowed percentage for warp may be smaller due to finer counts and higher twists. Filling, on the other hand, is expected to run a little worse because of the greater bulk of coarser counts and perhaps much lower twist multiples. This is particularly true in soft filled sheetings and related types of fabrics. Whatever the case, however, the limits must be set realistically and must be based on local conditions if the results of the test are to be of any value.

Spinning package size is important from any aspects. If the bobbin is being filled to its proper capacity the frame

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will operate at its best efficiency, that is, it will run the prescribed time between doffs. This will allow the doffer to take full advantage of his piece rate. He will make more money and the frame will be producing maximum poundage. This condition will keep everyone happy. An additional advantage to maintaining full package size is less creeling time on operations which follow spinning. The spooler may be allowed to produce more poundage in the case of warp yarns. In the case of filling, if the yarn is to be quilled the winder will be more efficient. If quillers are not used, full filling packages will result in fewer transfers from battery into the shuttle on the loom which minimizes the possibility of breakdowns or second quality cloth caused by poor transfers. The battery filler has an easier time of running her job if she is supplied with filling bobbins which are filled to capacity. If packages are not full, it is possible that the battery filler will not be able to keep her job running even though she is plugging the prescribed number of quills into the battery.

Attempting to put too much yarn on a bobbin can have extremely serious results. A filling package which is too full will slough-off much more frequently than one which is not filled beyond its normal capacity. Tangled yarn resulting from filling the package too full will cause more frequent breaks on the spooler and winder. The number of ends down on the spinning frame will be increased if the bobbin is filled too full.

Weighing The Yarn

One method for controlling package sizes is by weighing the yarn on the bobbin from each frame once per week. An eight-inch quill may be expected to hold approximately 650 grains of yarn, without being overfilled, whether the count is 5s or 35s. This standard may be determined through an actual weight method. Well formed, full packages may be selected by personnel who are qualified in such matters. Enough of these bobbins should be weighed to assure a good average weight is obtained. Before the standard is set, however, the package size must first be proved in subsequent operations. Observations must be made of the yarn running on the spooler, winder or quiller. If the yarn goes straight to the weave room, it should be closely observed on the loom. Filling packages which are given to sloughing-off, of course, cause more harm than any advantage gained by increased spinning frame efficiency. The spinning frame is only a vehicle used for getting the stock from the roving frame to the loom and it must be treated as such.

The operation of the spinning package size test is carried out in a few simple steps. For a group of filling frames, the doffers may be asked to save four full bobbins from each frame on their job. After this is done the test operator goes around the room collecting the bobbins of yarn, duly labeling each group of four bobbins as to count and frame number. The yarn is then twisted or knocked off the quill and weighed on an ordinary grain scale. The total weight of the four quills is averaged and recorded. When all samples have been weighed the results should be placed in a permanent file. A copy of the test results should be passed along to the spinning room supervisor. He can then relax in the assurance that his package sizes are in good order or he can set out to correct the ones which may be either too full or too light. This test does not attempt to determine if the yarn is wound on the bobbin in such a manner as to

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Spindle speed on twister checked by using stroboscopic light device. ***(Photograph courtesy General Radio Co.)***

allow an excessively soft condition which lends itself to sloughing. This test is concerned only with the bulk of the yarn wrapped around the bobbin.

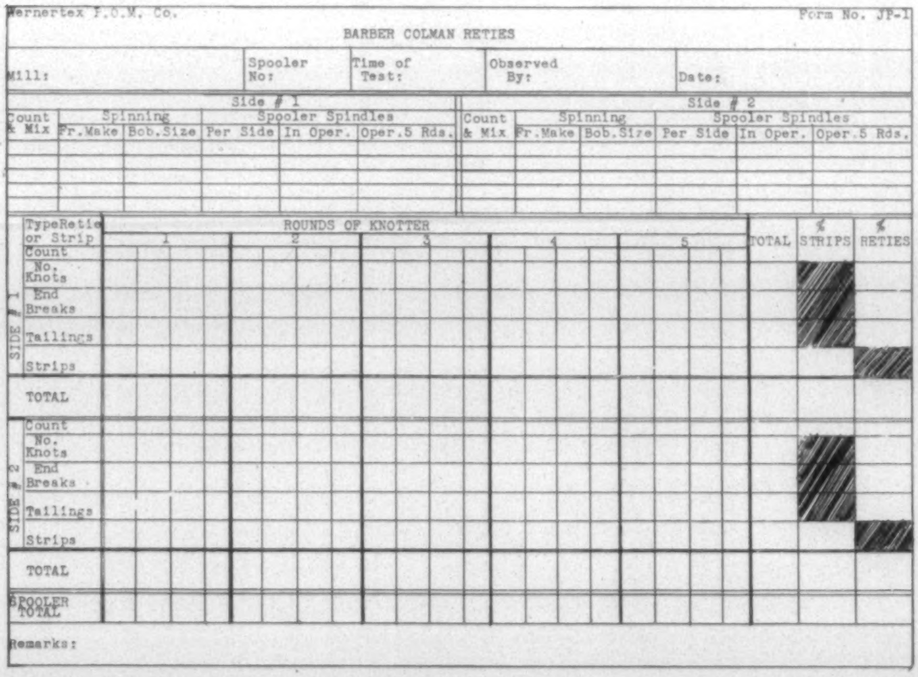
Spindle Speed Test

Proper amounts of twist from bobbin to bobbin and frame to frame, of yarn of the same count, may be assured by periodic tests to determine the spindle speed. This test may be accomplished by use of an instrument which employs the use of the stroboscopic light principle. Maintaining uniform spindle speeds is necessary due to the fact that twist varies as the spindle revolutions per minute for a given front roll speed. A variation in twist may lead, even if the yarn is not too soft or hard to break on the spinning frame or subsequent machine, to streakiness in dyeing. Softer twist yarn accepts the dyestuff more readily than harder twist yarn and shadings are a natural result.

Spindle speeds may be calculated using a gearing diagram of the spinning frame. The calculated speed multiplied by the spindle efficiency yields the average spindle speed for the frame running a given yarn number. The stroboscopic light is set on this average speed and then shined on the spindle as it rotates. Spindles running regular twist yarns which are not revolving as fast as the prescribed speed will appear to be turning in a counterclockwise direction. It naturally follows that when running reverse twist yarns, the spindle which is not revolving as fast as the prescribed speed will appear to be turning in the clockwise direction. The opposite is true, in both cases, for spindles which are turning at a speed greater than the prescribed number of revolutions per minute.

It may be well to allow a spinning frame fixer or bander to accompany the man operating the stroboscopic light. The fixer's time is saved if he doesn't have to hunt for spindles whose location was marked because of sub-standard speeds. Defective bands or tapes are usually the cause for improper spindle speeds. However, it is not improbable that spindles may be found which have the wrong whorl diameter. This is particularly likely in mills which are equipped with several types or models of older spinning frames.

For example, a 19.5s filling may have a twist multiple of 3.20, a one-inch roll speed of 140 r.p.m. and a spindle speed of 6,650 r.p.m. Practical limits must be set on all three of the variables, of course, but particularly on the spindle speed. All the spindles on the frame cannot be set exactly on 6,650 r.p.m. This is obviously not physically possible. However, it may be well within reason to operate



Wernertex F.O.M. Co. Form No. JP-1

BARBER COLMAN RETIES

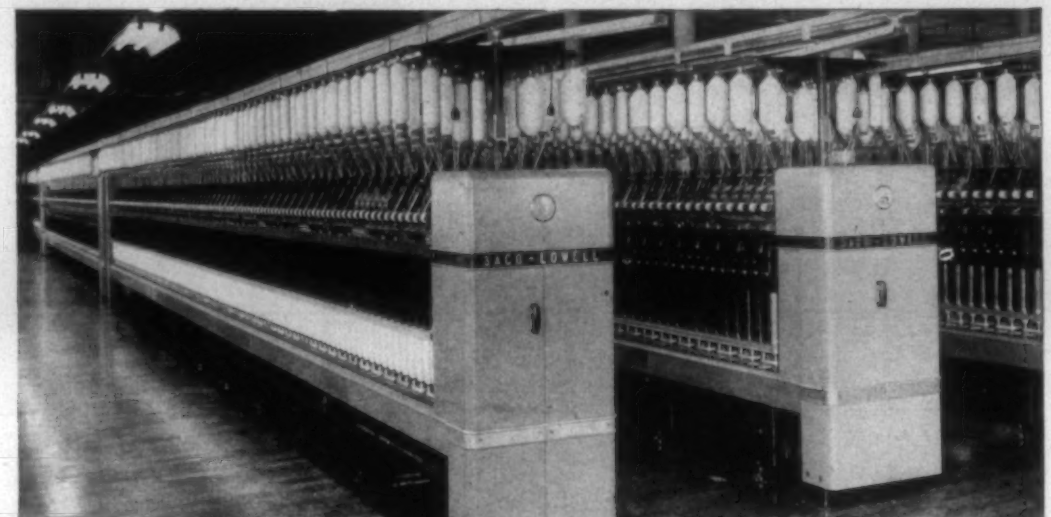
Mill:	Spooler No:	Time of Test:	Observed By:	Date:

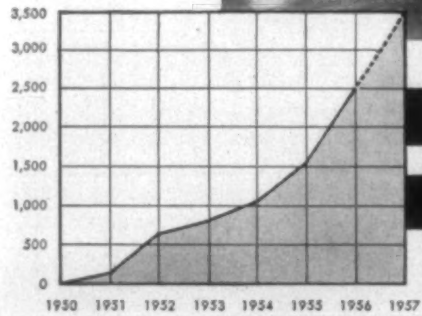
Side # 1						Side # 2					
	Spinning		Spooler Spindles				Spinning		Spooler Spindles		
Count & Mix	Fr.Make	Bob.Size	Per Side	In Oper.	Oper.5 Rds.	Count & Mix	Fr.Make	Bob.Size	Per Side	In Oper.	Oper.5 Rds.

		ROUNDS OF KNOTTER							
	TypeRetie or Strip	1	2	3	4	5	TOTAL	% STRIPS	% RETIES
SIDE # 1	Count								
	No. Knots							▨	
	End Breaks							▨	
	Tailings							▨	
	Strips								▨
	TOTAL								
SIDE # 2	Count								
	No. Knots							▨	
	End Breaks							▨	
	Tailings							▨	
	Strips								▨
	TOTAL								
	SPOOLER TOTAL								

Remarks:

This is an example of one of the forms which may be used to record the results of the spooler reties test. This form allows space for five rounds of the knotter and has separate space for both sides of the machine. ***(Form courtesy Werner Textile Consultants.)***





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all spindles at 6,600-6,700 r.p.m. or if these limits prove to be too tight, the yarn may not be noticeably affected if the spindle is run inside the limits of 6,500-6,800 r.p.m. Here, again, it is largely a matter of local conditions dictating the operational requirements.

Effect Of Sub-Standard Twists On Piece Dyed Goods

The effect of sub-standard twists on piece dyed fabrics may be determined by a rather simple test which involves use of the stroboscopic light. Perhaps the 19.5s filling mentioned in the previous paragraph is going to be woven into a fabric which is to be piece dyed. The frames running this yarn are studied under the stroboscopic light until spindles are discovered which are running far slower and far faster than the prescribed spindle speed of 6,650 revolutions per minute. The selected quills of filling are tagged with the speed found and taken to the weave room. Along with the sub-standard speed spindles, a like number of bobbins which were running at the average spindle speed are selected. The quills of yarn are then woven into the fabric. First place a quill of slow speed yarn in the shuttle. Follow this with an average speed quill and then insert a quill which was made on a spindle which was running at a speed much higher than the average. The cloth must be marked with a permanent type mark which will not be removed by finishing or dyeing operations. The sequence of filling insertions may be varied so that a slow speed quill is woven into the fabric next to a high speed quill. This will allow comparison of maximum speed differential. If the slow speed quill was found running at 6,350 revolutions and the high speed quill was running at 6,900 revolutions, the speed differential is, of course, 550 revolutions.

There will very likely be a considerable difference in dye affinity. The piece of sample fabric is then doffed from the loom and tacked onto goods of the same type which are being dyed and finished. When these processes are concluded, the sample piece should show clearly the effect of different spindle speeds. The start and end of the cloth woven with filling spun at each spindle speed is or should be clearly visible. The slower speed spun yarn will be more receptive to the dyestuff and, depending on the differential, may have a darker shade than the yarn spun at the average spindle speed. The same is true for the yarns spun at a spindle speed greater than the average.

When making stroboscopic examinations of spindle speeds it is highly important for the operator to keep the instrument calibrated. These instruments are delicate and will not read correctly unless properly calibrated. When inspecting the spindles in a large area of spinning frames it may be necessary to change the location of the extension cord plug. It is well to re-calibrate the instrument every time the extension cord is moved to a new station.

Spooler Reties

A test for determining the level of operation of the spooler is carried out by counting the number of reties which are ejected, by conveyor belt, to the sorting table at the end of the spooler. The tester stands at the end of the spooler and looks at the bobbins as they are thrown on the table. He counts the number of bobbins which are not fully stripped and notes the number of bobbins on a test form in the categories shown. An example of this test form is shown in Fig. 2. The bobbins are listed under categories including those which failed to tie; those which had end breaks due to slubs, weak yarn, etc.; and those which may have had cause for breaking which are not determinable.

Each side of the spooler is tested separately. Accurate results will be obtained by testing quite a few cycles. Reliable results offset the time consumed in test operation. Ten cycles may be necessary before a true picture of the spooler's operation comes into focus.

The raw test results are refined by using the formula:

$$\%\ \text{Reties} = \frac{\text{Total Reties} \times 100\%}{\text{total spindles} \times \text{no. cycles observed}}$$

The per cent reties in each category mentioned before should also be calculated. This breakdown gives a good picture of how many reties are being made and what the approximate cause for the reties may be.

Slub Catcher Settings

The purpose of the slub catcher on the spooler is to break yarn which contains imperfections. If the slub catchers are set so wide or without uniformity, they cannot do their job in proper fashion. Yarn breaks are much easier to handle on the spooler than at the warper, slasher or on the loom. There is less loss of machine efficiency when the imperfection is taken out on the spooler. For this reason, the slub catcher should be set as close as local conditions will allow. A better yarn is delivered to subsequent operations if the setting is close. The yarn is better because it has a cleaner appearance and it has fewer slubs and knots. The warper cannot be more efficient than the relative strength of the warp yarn allows.

The slub catcher setting is made with a small hand tool which is graduated in thousandths of an inch. The operation is simple to perform and easier to check. The tester goes down the side of the spooler setting the tool in each slub catcher. The tool has been set on the correct number of thousandths and will not fit into the holes in the slub catcher if the slub catcher is not set properly.

Standards for different counts of yarn may be different so it is important for the tester to know what counts of yarn are being run on the spooler at the time of his test. Since this setting is made by the spooler fixer, it is well to have him follow the tester as the inspection is made. The results of the test are duly noted and should become part of the permanent record.

The results of the spooler reties and slub catcher setting tests should be reported directly to the supervisor responsible for each operation. Since a high percentage of spooler reties may be caused from a condition or conditions around the spinning frame, the test results should be available to the spinning room supervisor. Either corrective action or congratulations may be in order depending, of course, on the results of these tests.

University Of Florida Gets Chemstrand Display

An attractive educational display highlighting the roles of engineers in the chemical fiber industry has been presented to the University of Florida by the Chemstrand Corp. The permanent display, located in the University's engineering and industries building, is the first such display to be presented by Chemstrand to any educational institution.

Clemson, S. C.

Fiber Technologists Tour A. C. M. I. Testing Laboratory

By THOMAS D. EFLAND, Technical Editor

The American Cotton Manufacturers Institute held open house last month at its cotton fiber testing laboratories at Clemson, S. C. The following is a report of the highlights of the two-day meeting.

THE annual open house of the cotton fiber testing laboratory, division of technical service, the American Cotton Manufacturers Institute, was held April 24-25 at the Clemson House, Clemson, S. C. The two-day conference, attended by approximately 150 fiber technologists and mill executives, featured two technical sessions and a display of fiber testing equipment by manufacturers.

The Wednesday morning session opened with a welcome by Miss Helen G. Beasley, fiber technologist of the A.C.M.I. at Clemson, who had arranged the program for the meeting. She included a special welcome to all the former graduates of the laboratory training courses.

Speaking for L. G. Hardman, A.C.M.I. president, was James A. Chapman of Inman (S. C.) Mills, second vice-president of the institute. He pointed out the great interest in fiber science in the mills today and contrasted the tremendous progress in scientific measurement of cotton fiber characteristics with the operation of a mill when he first entered the textile industry and found everything controlled by rule of thumb. In a second welcoming speech, John Elting of Kendall Mills, Paw Creek, N. C., noted that mills are "not only committed to a program of fiber testing but are actually forced into it."

Welcoming the group to Clemson on behalf of the School of Textiles, Dr. Hugh M. Brown pointed out the progress made in just the last ten years in measuring cotton properties. He recalled that at technical meetings ten years ago there was considerable discussion as to whether or not cotton fineness could be measured, and now, the room in which the current meeting was being held was filled with laboratory machines displayed by the various manufacturers for measuring numerous fiber properties.

As the technical session began, the chairman, Joseph L. Delany of Joanna (S. C.) Cotton Mills Co. introduced Dr. Tom Kerr, fiber technologist from the Plant Industry Station, U.S.D.A., Beltsville, Md. Dr. Kerr discussed the quality of cotton from the farmer and breeder point of view. He pointed out that "fiber quality depends on three factors: variety, growing environment and handling conditions." To improve quality through breeding, a population of variable samples must be available with some range of the desired characteristics present in the population. From the population individual plants are chosen which show the most promise for the characteristics. From these individual plants, tests are begun which run through several years before final judgement of the new variety can be made. These tests start with fiber strength and length tests in the first year and continue until complete spinning tests are finished. Dr. Kerr explained that if it were necessary the seed of a single plant could be increased sufficiently to plant a million acres in five years.

Dr. Kerr indicated that the farmers' interest was largely in the forefront of breeder work and that fiber properties were balanced against yield. While it is possible to produce many desirable properties, such as longer staple length, yield is usually reduced to such extent as to make the cotton infeasible from the growers' point of view. He indicated that there is a tendency for the grower to produce the lowest quality possible for the highest possible price and therefore the industry must demand what it wants.

Much of the emphasis on scientific testing and measurements of fibers is the work of the breeders, Dr. Kerr indicated, citing particularly the work of Pressley and Hertel. The future still offers possibility for improvement of cotton but the growing will be slow and hard to make. "The days of easy gain" have passed, he stated.

Saying that development of scientific tests and standards for cotton came about as a result of the challenge of synthetics during the 1930s, J. T. Rouse, cotton technologist of the Standards and Testing Branch, U.S.D.A., Washington, D. C., outlined the development of the standards. He characterized the early days as a battle between the cotton classer and the cotton laboratory technologist in which each constantly attempted to discredit the other. Over the years, he indicated, the feeling of mutual respect and dependence of one on the other merged. The laboratory is now a scientific supplement to the classer.

Mr. Rouse pointed out that the work has followed two avenues. The first is the obtaining of information and standardizing of the testing so that there is a high degree of repeatibility in the tests. The second is the research phase which tests to find new standards and to set up absolute standards.

As a result of the program initiated by the U.S.D.A., the present grey standards were established, and Mr. Rouse outlined the procedure for selecting the cotton for the samples. He pointed out that a classer makes the initial selection of cotton for the grey standards and then bales are subjected to laboratory testing. From the assembled cotton the boxes are prepared, consolidating the 12 grades in each box. Before the boxes are sent out they are checked by a classer who is the final judge.

Discussing the procedure for making the staple standards, Mr. Rouse pointed out that any unusual character in the cotton is avoided and that the length variation of the cotton is resricted to no greater than one one-thousandth of an inch. The laboratory plays a vital role in the final selection of bales for the staple standards. He mentioned that before 1942 the staple standards were selected entirely by the classers, which caused a tendency for the samples to get progressively longer from year to year. However, since laboratory measurement was introduced the staple length has remained constant.

Although not official, a third set of cotton standards is available from the U.S.D.A. commonly called calibration cottons. In discussing these, Mr. Rouse indicated that the same care is used in the selection of the bales as for the official standard samples for grade and staple. In this case the cotton is processed on conventional machinery into card web and the samples are made up from the web. Each lot for calibration purposes is checked by a group of five selected laboratories to give the average readings. Only the Pressley and Micronaire readings are indicated, allowing other laboratories to calibrate their testing apparatus to that of the five selected laboratories. With each calibration sample sent out, a blind check test sample is sent for the laboratory to check. The results for the blind sample go back to Washington where a record is kept allowing the variations of individual laboratories to be calculated. The calibration cottons, he pointed out, while not official, are supervised by the A.S.T.M. at present.

Closing his paper, Mr. Rouse stated, that while all problems in cotton fiber testing have not been solved, the U.S.D.A. is looking forward to an expanded cotton testing program.

Addressing the group, Earnest Carpenter of Greenwood (S. C.) Mills discussed the functions of a cotton classer-purchaser. He outlined a three-function role in this area—(1) "know what good cotton is"; (2) "get good cotton"; and (3) "see that the cotton is processed properly through the mill."

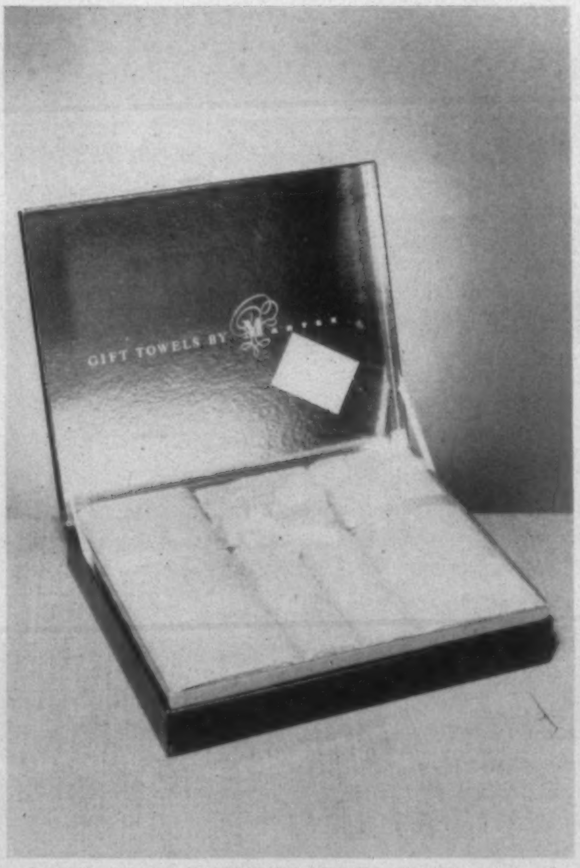
Expanding on the first of the points, he emphasized the need for fiber testing to find the differences in the cotton that make for good running on the type of material the mill is producing. Such laboratory tests as the Pressley for strength, the Micronaire for fineness, and the Fibergraph for the uniformity ratio are a tremendous supplement to the work of the classer in determining just what cotton is necessary for good mill operation.

The laboratory, he said, is a valuable aid in evaluating the cotton in a particular area and in detecting the differences from crop to crop. By a series of spot checks over a growing area his mill has been able to estimate the situation as to the amount of cotton suitable for its particular needs and thus go about selecting that cotton for purchase.

In pursuing the third point (i.e., seeing that the cotton is processed properly), Mr. Carpenter called for the education of top management and superintendents on fiber testing. "No program," he said, "can be fully successful without the co-operation of the superintendent." Using the knowledge gained from the classer and the laboratory, cottons can be blended for the following results: (1) leveling out of neppiness; (2) uniform running conditions; and (3) reduction of variation in roving number, yarn number, strength and uniformity.

Closing the two-day open house, James Wheeler of Canton (Ga.) Cotton Mills presented a paper on the "Relationships of Cotton Fiber Testing to the Quality Control Program in the Mill." He pointed out that "quality control cannot be successful without a fiber laboratory." Confining his remarks to the production of denim, he pointed out some of the effects that variation in fineness can have on quality through the mill. In opening, greater fineness means more bulk and the cotton is more susceptible to matting in air transporting, and there is more fly, he said. The appearance of the card sliver, too, is dependent on the fineness with an increase in neps usually as the fiber fineness increases. In the dye process, the finer fibers often give trouble, especially in the raw stock dyed goods. If the blend varies as to fineness it will show up as difference in the yarn from bobbin to bobbin as quality control checks are made.

To control quality, Mr. Canton advocated a series of fiber tests to find out what range of cotton characteristics the mill needs. Once the range is established, he feels, it should be included in the cotton contract. After the elimination tests, further tests should be made as the goods are processed to check such items as the blend length, blend fineness and strength. He concluded his paper with the idea that once the proper fiber is being selected there will be less complaints on cotton and more emphasis on machine adjustments.



SECOND AWARD IN TEXTILE BOXES—This Martex Towels gift box, made for West Point Mfg. Co. by the Old Dominion Box Co. of Charlotte, N. C., won second award in the 1957 Set-Up Paper Box Competition sponsored by The National Paper Box Manufacturers Association. The box is wrapped in subtle stripes of gray, embellished with an embossed foil seal. The hinged lid opens to reveal a gold foil lining, to which a gift card and envelope are attached. A separate tray, banded in gold with an acetate lid, protects the towels.

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Joanna Reports On

The Use Of Metallic Card Clothing

By J. L. DELANY, General Superintendent, Joanna Cotton Mills Co., Joanna, S. C.

One of the most controversial subjects in the industry at the present time has to do with the use of metallic card clothing. Here's one mill's experience, though, that shouts highest praise for it. Mr. Delany delivered his paper at the Spring meeting of the South Carolina Division of the Southern Textile Association at Greenwood, S. C., on April 26.

THE use of metallic card clothing, from a historical point of view, is not new. The wool industry has been using it for several generations. One mill in fact, has reported that on an extra-width woolen card it had been running metallic card clothing for over 60 years. In our own cotton textile industry, we have the classic example of the Columbus (Ga.) Mfg. Co. which began installing metallic clothing on its cards in 1928, completing the installation over a ten-year period. It was my privilege to visit this fine mill in 1950 to see this clothing and I came away greatly impressed with its potential. The quality of the web was very good. The cleanliness of the roving and yarn was excellent. On looking over the cloth, one was easily sold on its good appearance and quality.

We decided to try this clothing on our cards at Joanna. Some of the earlier trials in other mills were made on a single card which offered but little in the evaluation of so great a project. For this reason we installed ten cards and based our research on what could be called a substantial offering. The earlier installations at Joanna were somewhat tedious and time consuming. By the time the card had been stripped down to the base cylinder and doffer about a day had passed. Then the next several days were spent in winding the base wire on which the top carding wire would be wound.

Extra Weight Factor

The base wire installation is necessary to restore the normal cylinder and doffer working diameters. Here is where the factor of extra weight enters the picture and by all means management should clear this matter with their engineers as to the load carrying capacity of their building. Somewhat in excess of 500 pounds weight will be added to each card clothed with metallic clothing.

After installing the base wire it is absolutely essential that this be ground to a true and accurate surface. Unless this is done properly then the top wire will be uneven, require excessive grinding to correct, and the sharpness of the tooth will be destroyed. On flexible, conventional clothing, the wire must be ground, and ground regularly and often to produce quality work. On metallic wire clothing, in my opinion, it should only be ground upon its installation or repair and at this time only enough to allow a true and level surface in order to set to gauge.

Management as a whole did not look too favorably on the method of installation used by the earlier fitters. Too much old fashioned line shaft driven makeshift devices of uncertain stability were used. There was too much splicing of the wire, using flame-heated soldering irons. For some reason electric irons were not popular. There was too much time lost in just setting down resting while the old style bare cylinder grinding wheel would make its interminable trips to and fro across the cylinder and the doffer. Too often but one grinding wheel could be used, thus prolonging the job out of all proportion.

The fact that the top wire was sent to the mill in standard lengths and required several splices to fill out the length needed for the cylinder, and for the doffer, didn't suit too well. After all, when cards must be set to one-thousandth of an inch it can well happen that a defective lining of the spliced ends may cause one end to be slightly higher than the other, which of course may only be remedied by excessive grinding in order to properly set the card. The fitter also needed a helper to assist in the installation, to fetch and carry, to turn the hand crank when necessary, to help with the shifting of the belts, and all in all to use as a flunky. Then after the top wire had been fitted it was still quite a task to rebuild the card. Most of the earlier fitters could fit about four cards in five weeks, with a helper as well as plenty of assistance from the card grinders. The size of the job too had a bearing, in that on a large scale job extra equipment would be made available so that more than one card at a time could be worked on.

In spite of these objections we at Joanna put on our trial sets, checked them out, and found we were doing a superior carding job with the metallic card clothing. The web was smoother, there was a definite reduction in neps, and surprisingly there seemed to be a marked increase in the efficiency of the card. The waste taken out on the flat strip was darker and had less long fibers. Our waste dealers weren't too happy about this.

Mechanical Advantages

From a mechanical standpoint, metallic card clothing has several advantages. It needs no grinding. Stripping is absolutely minimized and what waste removed is mostly impacted matter such as seed hulls, woody substances and belt dressing. There is a minimum of lint. Should there be a smash it may not be scratched up as one would do with flexible fillet. However, it can be repaired by cutting out the bad section and rewinding in a new length of wire. This is an advantage over the flexible wire for if that becomes flattened out the entire cylinder or doffer must be discarded representing a total loss.

During the last several years, a new type of high precision installation equipment has been made available to the industry by a Southern manufacturer. We were never happy about the old fashioned, previously mentioned, installing gear. This was a continual source of frustration to both management and supervision at Joanna. The wire itself was no different from that which we had been using, that is superficially. Actually, we found it to be very exact in height. It also came in two exact lengths, one each for the cylinder and for the doffer, so that there would be no splicing taking place in the length of the top wire being fitted to either the cylinder or the doffer.

Improved Installation

On the day the trial set of the new clothing was put on, both card room supervision and management were amazed to see the fantastic job of precision installation we were being given. Nothing had been left to chance, each single operation had been very carefully, and powerfully, motorized. New, high-speed grinders were on hand, one each for the cylinder and the doffer. Dial micrometers were fitted on each end of the grinders to accurately measure the amount of stock taken off at each traverse and to insure holding to a minimum the amount ground off the top wire. The auxiliary equipment was just as fantastically made up. There was a one-man, remote control card drive which would allow one man to do the actual installation. Whatever extra help necessary to handle the lifting of the rolls on or off the card would be supplied by casual assistance from the card tender or grinder.

Pittendreigh, Etters, Liner

One of the features of the Spring meeting of the South Carolina Division of the S.T.A. at Greenwood, S. C., was the election of divisional officers. W. B. Etters of Reeves Brothers, Spartanburg, was named chairman to succeed J. N. Jenkins. Named vice-chairman was Robert A. Liner of Greenwood Mills. W. M. Pittendreigh is president of the association.

Base Wire Splicing

While the top wire is supplied in one continuous length, and this is highly essential, the base wire can not be so delivered. It is too heavy and would be impractical and unnecessary to have it this way. For this reason splicing is necessary and to expedite this chore a precision, quick-action welding device is used. This is a very practical device, and one result which we can see on our cards is the freedom from rust stain and discoloration coming through the top wire which occurs when ordinary soldering is done. The stains are caused from the soldering acids used which for some reason or other bring on oxidation. Just how serious this may be we don't know. Up to now it has proved no problem. Improvements were also made in the "H" wire used at the selvages of the units clothed.

Doffer Journal Repair

Shortly after our initial installations were begun we were confronted with the fact that most of our doffer journals were badly worn. On regular fillet clothing the settings aren't too tight and there is also a certain amount of give in the flexible clothing—not so in the metallic. The setting is .005 of an inch between the doffer and cylinder and there is absolutely no give to this clothing.

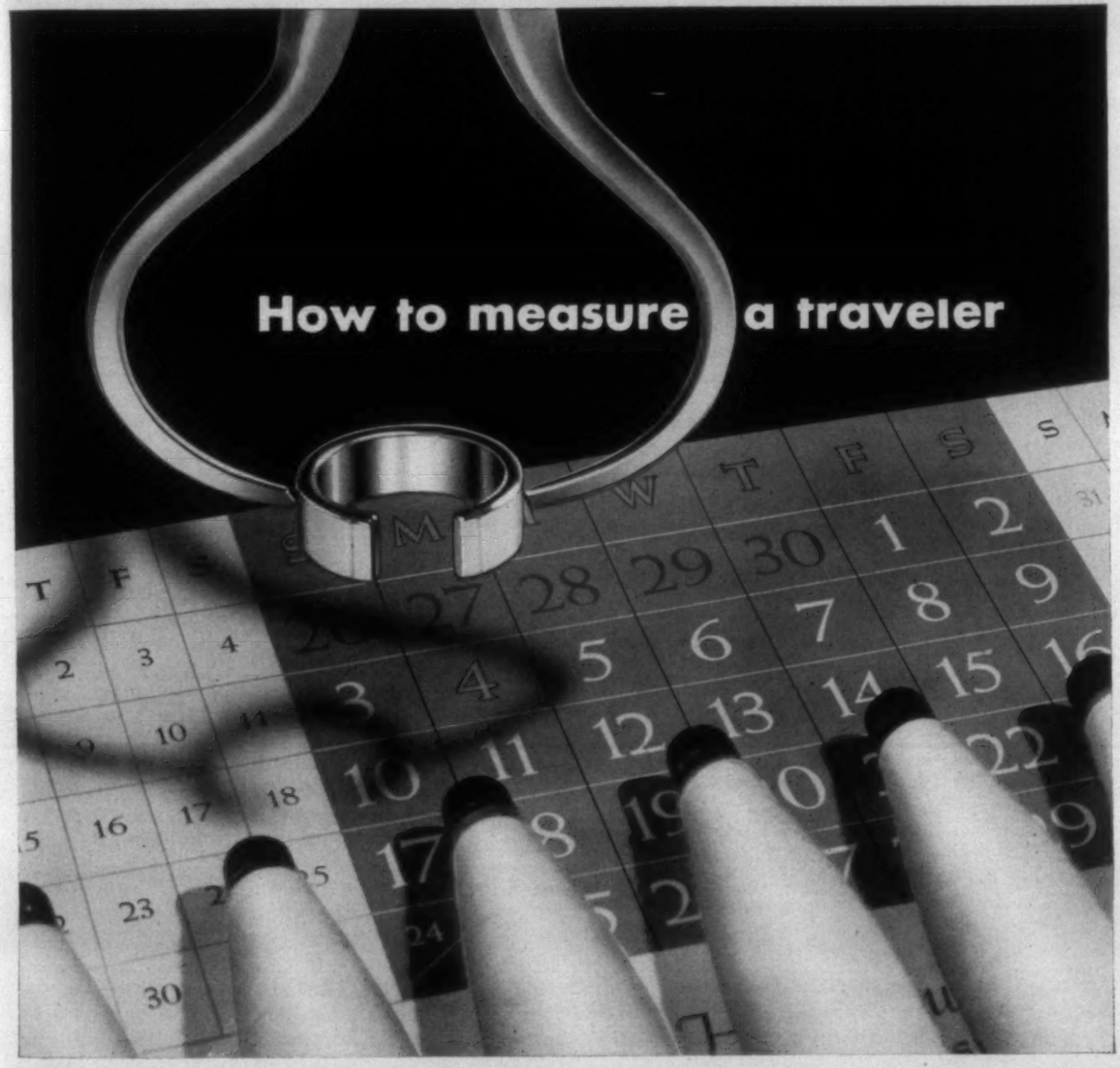
We then started a program to replace the journals as we clothed the card. This proved to be too expensive. On our cards the journal costs about $48.00; the cheeks of the card also contain built-in bearings and these units run about $50.00 per side. We had been told that it would be against good shop practice to build up these cast-iron journals and then turn them down to exact size because welding a cast-iron journal caused excessive distortion. A distorted journal would be impractical to use and must be discarded causing complete loss of the repair.

We had a new type metal spraying device coming in at this time and this proved to do the job very well indeed. We welded about 15 or 20 journals without a single instance of distortion. These journals are still running after five years.

Our problem with re-using the cheeks was solved by our shop supervisor who suggested planing off one-sixteenth of an inch from the joining surface of the lower bearing, clamping the top and bottom bearing together, and reaming the bearing to standard size. This we have been doing now for about five years without creating any difficulties.

Mechanical Contrivances

There were two other jobs which we worked up. One



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was a device with which one man can lift the doffer out of the card using normal manual means; with two men, or with four men, this is a very unsafe operation due to the close quarters between adjoining cards as well as the weight of the doffer itself. The winch, with plenty of power, mounted on a ball bearing castered frame allowed ease of handling to a rather frightening task.

The other job was to take out a doffer journal. Driving it out with hammers is doing it the hard way and the long way too. Our shop supervisor came up with a beautiful rig which utilized a 20-ton jack acting against a special frame. One man can take out the old journal and put in a new one in less than 30 minutes using the rig.

Here is a compilation of the questions most frequently asked of Joanna Cotton Mills concerning the use of metallic card clothing. Mr. Delany answers the questions and presents graphic reviews in support of statements.

Question: In a general way, just what does Joanna expect to gain from the use of metallic clothing?

Answer: What we have gained is a definite and positive nep reduction in our web, our yarns and our fabrics. We are also saving a lot of spinnable fibers at the card that on regular clothing would have been taken out in the flat strips. We are minimizing stripping with natural savings in reworkable waste and loss of coefficient of variation. We have eliminated grinding which is wasteful, unproductive and time consuming. We have installed clothing which, barring bad accidents, will last the balance of the life of the card. (See Figs. 1 and 2 for a graphic review of these facts.)

Question: Doesn't it take much longer to install metallic clothing than regular clothing?

Answer: It takes approximately 30 hours for a trained man to properly install the metallic clothing. The time for installation on the regular clothing may vary from six to 20 hours. However, there are usually two men required to install regular fillet while only one man is needed for the installation of the metallic wire. Needless to say, in the installation of either, a certain amount of added help is usually provided by the grinders. The breakdown of installation time on metallic clothing is approximately 50 per cent for the cylinder, 25 per cent for the doffer and 25 per cent for the base wire.

Question: Can the ordinary card grinder install metallic card clothing?

Answer: No he cannot. It may be installed only by a manufacturer's agent who comes equipped with very special installation equipment. A local man, who is of good intelligence and has some mechanical ability, may be trained by the manufacturer to install this clothing. This training period may take anywhere from two to four weeks depending on local conditions.

Question: How much more does metallic clothing cost than regular clothing?

Answer: The material cost is almost twice as high on the metallic than it is on the flexible fillet regular clothing. This cost includes the price of the base wire which, of course, is only installed once. Should it become necessary to reclothe the card, the original base wire is still there and its cost will not be included in any further reclothing.

Question: How long will metallic last compared to regular clothing?

Answer: The normal life of regular clothing is from five to ten years. Its life is controlled by the frequency of grindings and if ground lightly or heavily, the hours per week of operation, whether or not it is run three full shifts and if six-day weeks are normal practice. There is also the policy of management towards replacing fillet having definite wear, or being unable to deliver stock of a quality to meet standards. All of these affect the life of the regular clothing.

With metallic clothing there is no grinding, hence no loss in the height of the wire. Some manufacturers make the claim that the actual wear on the tooth does not occur on the tip, but at a point about one-fourth down the front of the tooth. In this way, the manufacturer claims the tip of the tooth does not wear but actually grows sharper with its normal life. Under these conditions the life of metallic clothing may actually be tied in with the life of the card, barring unforeseen accidents.

Question: Isn't it true that a small smash on regular clothing may be scratched up whereas such a smash on metallic clothing must be cut out and replaced?

Answer: Yes, smashes do necessitate replacement. However, the entire fillet isn't taken off—only the damaged circumference is cut out and replaced. Smashes may be less of a disadvantage on metallic for on large ones, which utterly ruin regular clothing, only that part of the wire that is damaged need be replaced.

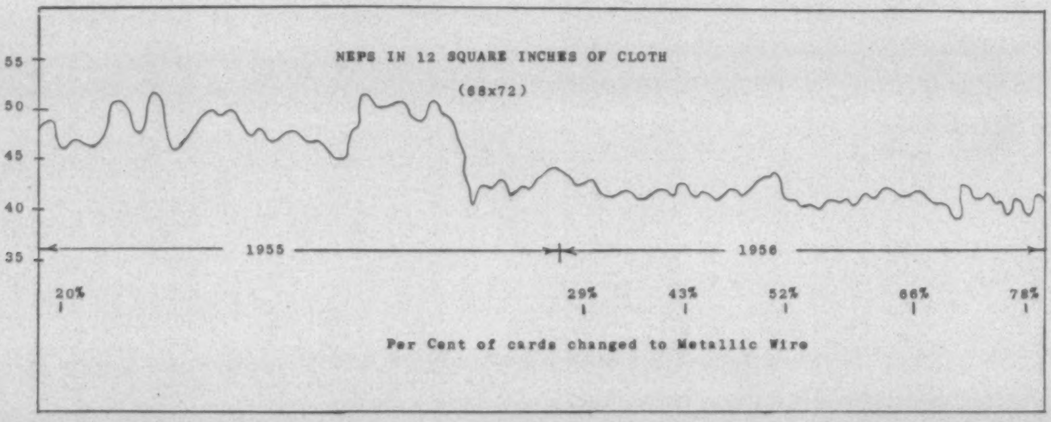

Fig. 1—Neps in 12 square inches of cloth.

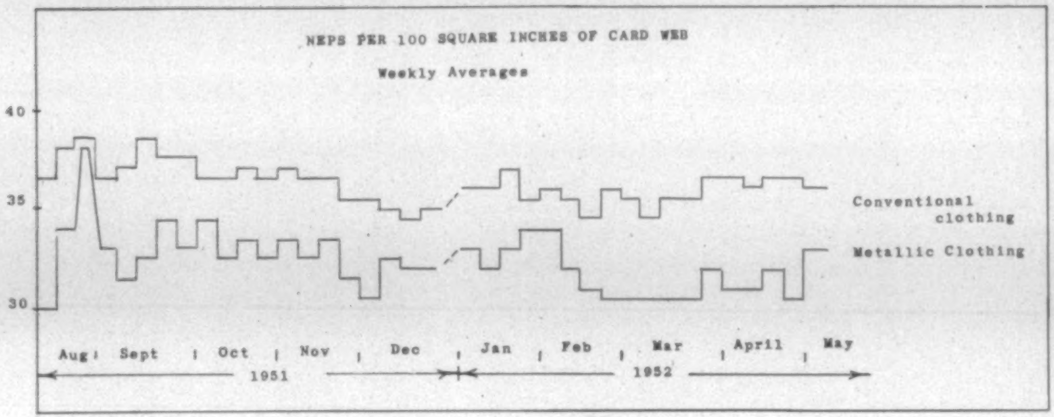

Fig. 2—Neps per 100 square inches of card web.

Question: Approximately how much per year per card does it cost to operate on regular clothing as against metallic clothing?

Answer: The normal life of regular clothing is approximately one-fourth the normal life of metallic clothing. This is debatable, but based on this premise we have arrived at a figure of about $22.50 per year on metallic as against $47 per year on regular clothing. This is based on the actual cost of the clothing and does not include any other factor such as waste and production savings, improved quality and no grinding required.

Question: How often is grinding required on metallic card clothing?

Answer: Grinding is required only at the time of the installation and at any later date when a major repair has been made. It then becomes necessary to grind in order to level the wire for the purpose of accurately setting the card to gauge.

Question: Can metallic clothing be set as closely as regular clothing?

Answer: Yes, it may be set even closer. On regular clothing the card grinder develops a "feel" for his setting. He may use what he calls a tight or a loose setting. On metallic clothing it is set the same way the valves on your automobile are set, "go" or "no go." As a general rule, metallic clothed cards are set much closer than regular clothed ones due to the rigidity of the wire.

Question: How frequently do smashes involving reclothing the card occur on metallic clothing?

Answer: Our experience has been about three cards per year. Most of these repairs were on the doffers and were caused by water getting on the doffer and causing a build-up of stock. This experience was on about 200 cards.

Question: Are not close settings dangerous?

Answer: Yes. A regular clothed card has a certain amount of "give." The wire is flexible and will bend. On metallic clothing there is no give at all. The wire is perfectly rigid. For this reason—lumps, hard ends and folded laps *must* be kept out of the card. The web must not be allowed to run around the doffer and build up. The closer settings will make a smash much sooner than on a regular card.

Question: How about flaking or ragged selvages on metallic clothing?

Answer: This difficulty also occurs with a startling amount of similarity on regular clothing as well as on metallic. We think the answer lies in better fitting screens, screens made concentric with the cylinder or possibly screens of a different type. Up to now we have no answer to this question.

Question: What about the use of continuous strippers on cards equipped with metallic clothing?

Answer: Continuous strippers would be entirely useless, and wasteful. The fine needles will effectively keep the lint on top of the regular wire, hence minimizing stripping. On metallic wire there is only a minute amount of lint in the wire at any time. Foreign matter such as impacted wood, seed hulls, belt dressing and other such material may best be removed by the mechanical action of a wire brush.

Question: Doesn't the use of metallic clothing take out less waste on the card than does regular clothing?

Answer: Yes, the metallic clothing is more selective in getting the waste and not the spinnable fibers. The strips will be lowered at least one full grade and will also contain less lint and more trash. There will also be less lint in the fly. (See Tables 1 and 2.)

TABLE 1

WASTE ANALYSIS*

	Wire Per Cent	Metallic Per Cent
Fly Waste—Lint Content	40.78	44.88
Visible Waste	48.26	44.10
Invisible Waste	11.00	11.08
Trash or Total Waste	59.26	55.18
Strips—Lint Content	75.30	84.18
Visible Waste	18.84	10.10
Invisible Waste	5.92	5.82
Trash or Total Waste	24.76	15.90

*Samples taken from 30 cards running stock for shade cloth. Fifteen cards were clothed with metallic clothing and 15 cards were clothed with regular fillet.

TABLE 2

Card Clothing Comparisons
August 1954

	Neps 100 Sq.-in.	Waste Grs.-/Flat	Oz. Fly Per. Hr.
Regular Fillet	34.8	13.7	1.8
"A" Metallic	28.2	10.3	1.5
Semi-Metallic	33.0	15.2	1.6
865 R.P.M. Licker	32.2	11.5	2.4

Question: If less waste is taken out on metallic clothing than on regular clothing, isn't this stock coming out in a later process as clearer waste?

Answer: We have no direct answer to this question. We feel that we aren't taking out less waste at the card, merely less spinnable fiber that should stay in our product rather than enrich the waste dealer.

Question: Isn't it true that the web from the metallic wire doffer has a bad tendency to fall off and end up under the card as waste?

Answer: This was true on earlier installations. However, during the latter part of 1955 a different type doffer wire was brought out which completely overcomes this trouble.

Question: What is the difference between the old and the new type doffer wire?

Answer: The new wire has less teeth per inch and more angle to the wire. Where the old wire had 14 teeth per inch with 80-degree angle tooth, the new wire has ten teeth per inch and 50-degree angle tooth. On some of our trials we went as low as six teeth per inch with very good results in the web, waste and finished yarn.

Question: Were there any other effects from the new doffer wire other than keeping the web from falling off?

Answer: Yes, much to our surprise we found a drastic reduction in spinnable fiber in the card strips. We think the new wire is more efficient about picking up the stock from the cylinder. It seems to get the lint off the cylinder the very first trip around, thus preventing the card from grinding up the fibers into waste that will come out as strips, fly and neps.

Question: What about the new type coarse wire used on the card cylinder?

Answer: Coarse wire with high angle on the cylinder will not card. The stock transfers very poorly from such a cylinder to the doffer. This we found out under actual test.

Question: Metallic wire may be all right for coarse goods, but what about fine count-long stapled cottons?

Answer: We are running metallic clothing on at least three different mixes. One is a fairly low grade type used in yarns from 6s to 18s and carded at a rate of about 15 pounds per hour. The second mix is our standard shade cloth mix of Strict Middling 1 3/32-inch cotton, carded at eight pounds per hour and spun into 30s and 40s. The third mix is Egyptian Karnak, 1 7/16-inch staple and carded at a rate of 4.50 pounds per hour. This is spun into 60s and 80s yarns. On a straight comparison test our metallic cards on all three of these mixes produce a web having less neps and a usually stronger yarn having less imperfections per 50 yards found on our imperfection counters. The facts were verified by at least two outside agencies. (See Table 3.)

Question: How fast is it possible to card with metallic clothing?

Answer: There is no direct answer to this question. What we have found is that when the two types of clothing are run in competition to one another at any speed, the metallic clothing always gives the best job of carding as to quality of sliver and amount of waste.

TABLE 3
YARN COMPARISONS

	Wire	Metallic
Size Warp	31.31	31.94
Break in lbs.	70.6	67.9
Break Constant	2210	2169
Neps per 50 yds.	79	72
Size Filling	40.52	40.10
Break in lbs.	48.5	52.8
Break Constant	1965	2117
Neps per 50 yds.	89	72

Attending the meeting of the South Carolina Division of the Southern Textile Association at Greenwood, S. C., Friday night, April 26 were W. M. Pittendreigh, Riegel Textile Corp., Ware Shoals, S. C.; T. I. Stafford, Clifton (S. C.) Mfg. Co.; J. A. Chapman Jr., Inman (S. C.) Mills; and J. L. Delany, Joanna (S. C.) Cotton Mills Co. Mr. Pittendreigh is current president of the S.T.A., while Messrs. Stafford, Chapman and Delany are all past presidents. Mr. Chapman, as immediate past president, is currently serving as chairman of the association's board of governors.

Question: Would metallic clothing be economically practical on waste cards?

Answer: We think metallic clothing will work well no matter where it is used. While we do run a substantial amount of waste, we prefer to use a special waste-type flexible fillet wire rather than metallic. We feel that there will come a day when we will use metallic wire on waste cards, but at present we are more interested in getting our regular production cards changed over.

Question: Does wetting the card affect the metallic clothing as badly as it does regular clothing?

Answer: No, because on regular clothing the cloth foundation becomes wet and in the course of time the wire in the base will rust, break and fall out. Since there is no fabric base in metallic clothing, wetting causes nothing that ordinary drying out procedures will not quickly overcome. Thus the card may be put back into production quickly and with no lasting threats to its life.

Question: Will metallic clothing abolish the job of card grinder?

Answer: No, the card grinder will remain as the card setter. It is essential that the card be properly set to adequately perform its task. Settings on metallic clothing are much closer than on regular clothing and must be more closely maintained. Furthermore, no matter what clothing may be on the card, there are flats, screens, lickers and other component parts to be set at regular intervals. The total number of grinders may be reduced but his duties as outlined here certainly show him to be a much required man.

Question: What combination of the new type wire teeth on metallic clothing gives the best results?

Answer: Our experience has led us to standardize on 80-degree with 20 points per inch on the cylinder and 50-degree, ten points per inch on the doffer. This requirement is necessary because the finer wire on the cylinder does not hold as much trash as does the longer, heavier type tooth. It also does a superior job of carding, making fewer neps, a smoother web and less lint in the waste. There is also an appreciable drop in the amount of imperfections in the finished yarn. The higher angle, coarser tooth on the doffer

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gives us a surface which will hold the web tightly, yet freely release the fleece at the comb. Due to the finer cylinder wire, there is also less impacted waste on the doffer surface. (See Table 4.)

Question: Is it possible to run a metallic clothed cylinder with a regular clothed doffer?

Answer: Yes, this was done on some of our earlier installations. Our purpose was to defeat the situation of the web falling off the doffer while carding. The manufacturer's recommendation was to grind the card very lightly. This would "rough-up" the tips of the wire and cause better web adhesion. To avoid this difficulty, before the remedy of coarser doffer wire with more angle had been found, the use of regular fillet wire was tried and proved effective in overcoming this trouble. From the standpoint of making a better web, a smoother yarn, or a stronger yarn, we could neither prove or disprove its use. We decided to replace this on the point of having all cards uniformly equipped and set. We also wanted to cut out grinding as well as minimizing stripping.

Semi-Metallic Clothing

Question: What has been the experience at Joanna on flexible-type wire having specially treated base and tips to compete against metallic wire?

Answer: We have tried several different types of flexible wire for which claims were made that there would be less stripping due to the increased height of the base clothing, as well as less grinding due to the extra hard point. The clothing also would bring a reduction in neps. In so far as less grinding was concerned, we found this to be true. The wire is much harder which allows it to stand up longer between grindings (based on the type cotton being carded). Grindings are extended to three or four times per year rather than per month. We also found it necessary to strip these cards less often or about once every 40 hours.

There was a sharp reduction in neps. Metallic clothing cut neps about 25 per cent. We found that this clothing cut neps about 15 per cent. This clothing cannot be scratched up as one would repair a regular fillet. While it resists bung-ups, it does not have any resilience. We have lost several of the trial sets due to bung-ups.

Question: What has been done in the use of metallic clothing on the flats?

Answer: J. W. and H. Platts Co. make and supply a flat covered with special metallic clothing. This is made up of short pieces set into the flat in such a manner as to be parallel to the wire on the cylinder. The manufacturer claims even greater than ordinary waste savings on this type flat. The company says that with the always clean cylinder and flat wire, the carding action is more efficient and the fiber is not drawn through a mass of dirty and filled up regular wire teeth, but passed through the card with about one-third less waste.

TABLE 4

COMPARISON OF TWO TYPES OF METALLIC CLOTHING*

Clothing on Cylinder		
Points per inch	20	14
Angle of Tooth	80°	80°
Clothing on Doffer		
Points per inch	10	14
Angle of Tooth	50°	80°
Card Sliver (grs./yd.)	39.8	40.4
Neps/100 sq. in. of web	22.0	26.5
Fly Waste (oz./hr.)	1.29	1.39
Warp Yarn Count	57.54	57.62
Skein Break (lbs.)	54.8	55.0
Break Factor	3153	3167
Yarn Imperfections/50 yds.	16.3	21.4

*Test run on Karnak—1 7/16" staple.

Question: What has been the experience at Joanna on different type flat wires?

Answer: Up to now we have tried several different types of flats covered with hardened wire. This is similar to the type clothing used on cylinders and doffers and for which claims have been made that it is as effective as regular metallic card clothing. Some grinding must be done on these flats but not as frequently as on the standard flat. We have found that there is a definite reduction in flat strips with no increase in neps in the web. We have not proved out yarn or cloth tests.

Joe N. Jenkins *(right)* of the cotton mills division of The Kendall Co., Pelzer, S. C., retiring chairman of the South Carolina Division of the S.T.A., congratulates his successor — W. B. Etters of Reeves Bros., Spartanburg, S. C.

Question: How effective is metallic clothing on synthetics?

Answer: We have had little experience with synthetics. The manufacturer claims that metallic clothing is even more effective on synthetics than on cotton. This is said to be true because there is no cleaning action and the card merely performs an opening and conversion to sliver action on the stock. We have been told by those in the synthetic field that there has been no fiber that they have not been able to card effectively on revolving flat cards equipped with metallic clothing. Naturally, the licker-in must be covered with wire made particularly for synthetics. Regular wire used for cotton carding will hold the fibers and build up a mat of stock on the licker-in which prevents carding action. The flat settings must be opened up considerably. There are other adjustments to be made which would normally be made on conventional conversion from cotton to synthetics using regular fillet.

Question: What are the disadvantages of metallic clothing?

Answer: Metallic clothing's first cost is greater and it takes longer to install. It requires highly specialized installing gear. Card tenders and grinders need a degree of retraining. On earlier installations, the web falls off the doffer. Flaking and waste on selvages is a draw-back. However, this may be due to ill-fitted screens. Minor smashes must be cut out and new wire spliced in. Greater care must be taken to keep hard lap ends out of the card. The web must not be allowed to run around the doffer and create a build-up due to the closeness of the settings.

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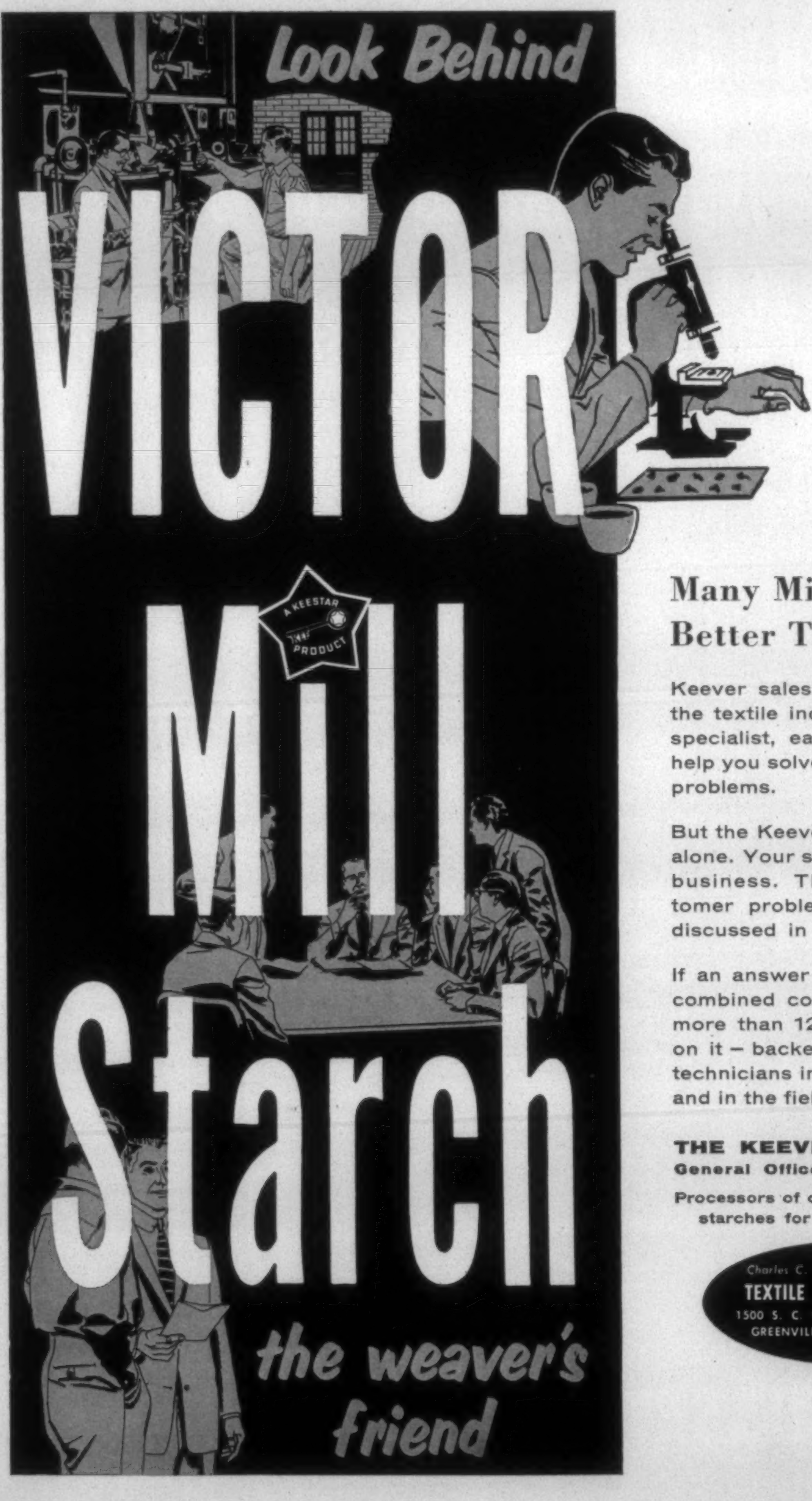

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Warp Preparation & Weaving

A Study in Loom Fixing

By FRANK D. HERRING (Part Thirteen)

In the following installment in this series for loom fixers and their supervisors, the author points out the importance of having the loom fixer and the weaver each know their individual and collective responsibilities.

THE loom fixer's responsibilities consist of doing the necessary maintenance work on the looms on his section to keep them operating properly and producing first quality fabrics. It is, or should be the weaver's responsibility to see to it that the loom fixer does his duty and keeps the looms fixed so that they will produce properly.

The loom fixer should check over or inspect the looms on his section during spare time between the time spent on working on looms which have been flagged for his attention, but he should not be held responsible for allowing a loom to continue in operation when it is not functioning properly. In this event the weaver should be held responsible for allowing the loom to continue in operation. In other words, it is the weaver's job to flag the loom if it is out of fix, and it is the loom fixer's job to fix the loom when he is called to work on it.

The loom fixer will sometimes fail to fix the loom when he is called to work on it, and in this event the weaver should be patient with the fixer up to a point of reason, and then, failing to get the loom fixed, he should report it to the second hand. Then it becomes the second hand's responsibility to get the loom fixed.

Most weaving mills have inspectors to check over the cloth one or more times daily while the looms are in operation to assist the weavers in detecting looms which are producing defective fabrics. The inspectors should either remedy the defect or call the weaver's attention to it; and then the weaver should take the necessary steps to get it corrected. The better the weavers are trained, the better the results from the looms will be; and a weaver has been insufficiently trained if he does not know when a loom should be flagged for the loom fixer's attention.

The second hand, the head loom fixers and others in authority sometimes inspect the cloth and the looms while the looms are in operation, and they very often find looms running which should be flagged for the loom fixer's attention. When this is the case they should call the weaver's attention to the trouble instead of flagging the loom themselves, because by doing this they will help to train the weaver to look out for the things that he should be on the alert for. By doing this constantly it will train the weaver to be on the alert at all times for the many things that are detrimental to the efficient operation of the looms, and he will become trained to the point where he will look out for and detect these things automatically, without even thinking about them.

Every employee on every job is a much more efficient workman if he is satisfied with the conditions under which he works. If he can feel like the conditions are fair and just, he will go about his work in a relaxed, contented state of mind, and his routine duties will be performed with much greater ease and efficiency. If he feels that he is being held responsible for things beyond his control, he will proceed about his work in a disinterested manner and the results of his efforts will fall below his normal potential.

There are two sure ways to dissatisfy and upset the loom fixer: (1) to have several people—second hand, head loom fixer, inspector, etc, going over his section of looms and putting up flags for his attention; and (2) to have the loom fixer leave his section, and whatever he might be doing, and go to the inspection tables and look at all the imperfect cloth which has come off his section. Of course, the second hand or anyone else should stop a loom off and flag it for the loom fixer's attention if he sees something broken or out of adjustment to the point where it is likely to cause trouble. But neither the second hand or anyone else should make it their job to go over the loom fixer's section looking for looms to flag. This should be the weaver's responsibility, and the weaver should be trained to realize and accept his responsibilities. And he should also be made to realize that the seconds which come from his stand of looms are his responsibility also. And when the weaver is called to the inspection table to look at imperfect cloth, he should not be allowed to offer the excuse that he could not get his looms fixed. It should be made clear to him that he will be held responsible just as long as he allows a loom to run out of fix without reporting it to the proper authorities. He should not, of course, be held responsible for a loom after he has reported that he could not get it fixed. At this point it becomes the second hand's responsibility to see that the loom is fixed. A lot of imperfect cloth is made from causes other than the loom being out of fix. This should also, of course, be the weaver's responsibility, and the loom fixer should not be called on to leave his work and take time out to look at such imperfections. In doing so, he can get behind with his work and have several looms stopped off and waiting his attention.

The supervisor should explain to every employee just what their duties and responsibilities on the job are. He should see to it that they realize fully, and accept these responsibilities, and he should also see to it that they are trained to accept and handle these responsibilities in an efficient manner. The balance of this article will be devoted largely to the loom fixer's expected contributions to the weaving of first quality fabrics.

If the loom fixer is called to work on a loom for making overshots and undershots in the cloth, he should check the following things in the order listed:

Top harness motion.
Harness setting.
Harness timing.

Shuttle boxing.
Time on pick.
Stroke on picker stick.

If using a top harness motion other than the spring top, check the rolls and the strapping to determine if the rolls are running freely and the strapping equally divided and pulling straight on the rolls. If using the spring top motion, and most Draper Corp. looms are equipped with the spring top, check the rolls and sheaves to determine if they turn freely, and are not binding against each other. Sometimes the holes in the sheaves will become worn to where they will drop to one side and bind against the adjacent sheaves. This will prevent the free movement of the harness, and the harness will not rise to its proper top position. When this happens the warp shed in that particular harness will be slack and drop down to where the shuttle will ride over the warp threads instead of passing under them, causing overshots to be made.

The best way to determine if the sheaves are all turning free is to press each harness down by hand and then release it at the bottom end of the stroke to see if it rises back into its proper top position. While doing this the fixer can also determine if the tension on the top harness springs is sufficient to pull the harness into top position. The tension on the top springs should be strong enough to hold the treadle rolls in place against the harness cams the full revolution of the harness cams. Care should be used in regulating the top spring tension, because if the tension on the springs is too great it will cause excessive wear and breakage of the top strapping and the strapping hooks and eyes.

Harness Setting

The loom fixer should turn the crank shaft to back center position (the harness sheds should be wide open at this point) and check the down sheds, near both selveges, to determine if the warp yarn is clearing the race plate, and also not too high in relation to the race plate. The yarn should just clear the race plate at this position of the crank arms. If the shed of yarn is too high in relation to the race plate some of the threads will be too slack and will not be drawn down into position. The shuttle will then pass underneath them and cause undershots to be made in the cloth. If the tension on the warp yarn is too slack it will cause this condition to be aggravated and become more of a danger. Tension on the warp was not included in the list of items to be checked, but the fixer would automatically notice this condition when he started to set the harness.

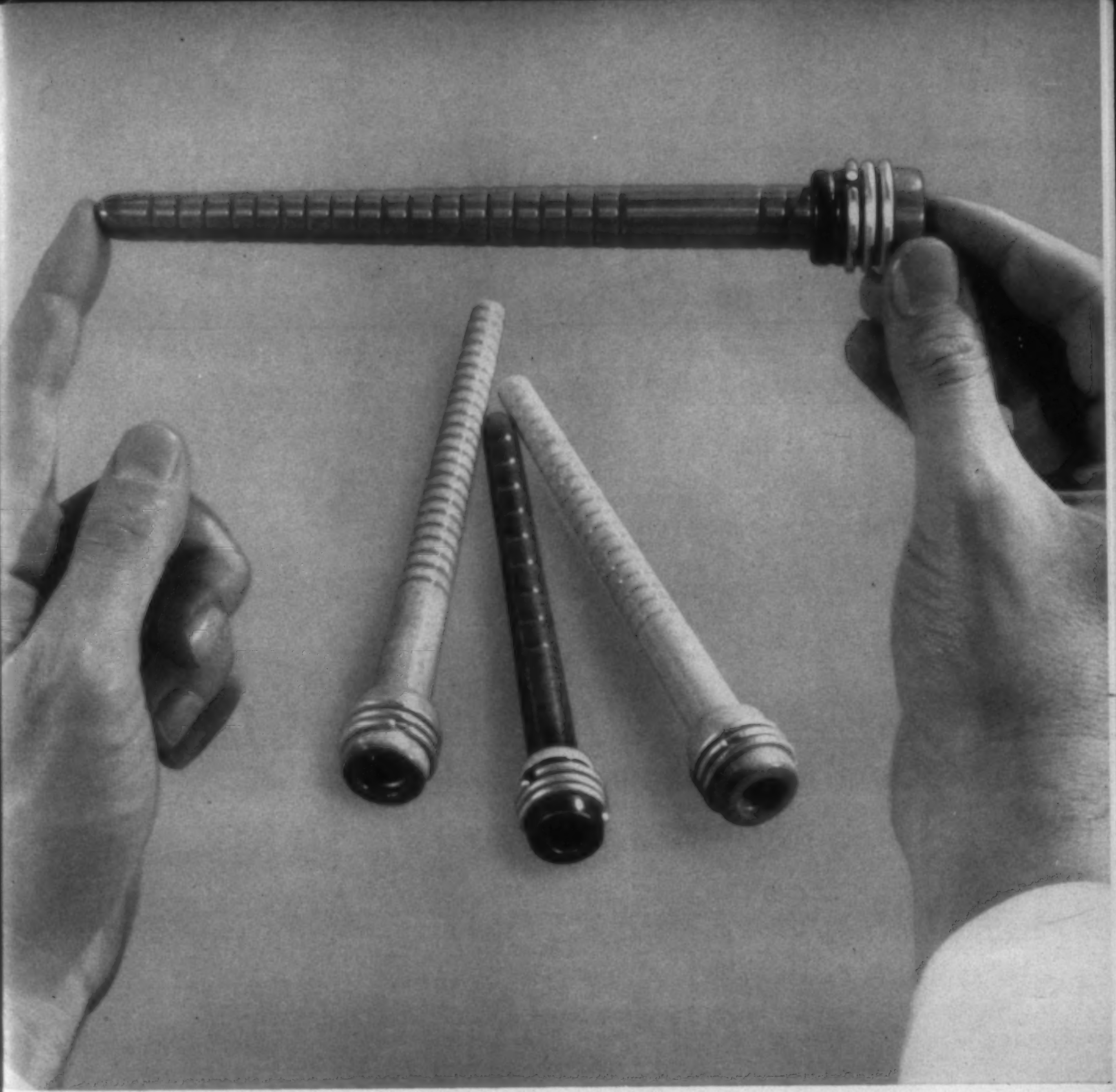
Sometimes overshots and undershots will consist of just a few warp threads, and will require close inspection in order to detect this defect in the cloth. Undershots are much more difficult to detect than overshots, because the dropped threads which do not become interlaced properly will be on the bottom side of the cloth. The weaver should inspect the cloth after it has been wrapped around the cloth roll, because the bottom side of the cloth is exposed here and undershots can readily be detected. One or more warp threads in the overshots or undershots will make it necessary to grade the fabric as seconds in most weaves.

Harness Timing

Too many loom fixers do not know what is meant when harness timing is referred to, and most of them have never been taught the vital importance of timing the harness correctly. Timing the harness means to position and tighten the harness cams on the shaft in such a way that the sheds will open in time to receive the shuttle when it is driven out of the shuttle box on the pick, and also to remain open until the shuttle has passed across the lay between the sheds into the shuttle box on the opposite end of the lay. The harness cams travel in a circle, and while traveling this circle they must perform four distinct functions: (1) they must use a portion of the 360 degrees to open the sheds; (2) they must use a portion to hold the harness sheds down long enough for the shuttle to make its passage; (3) they must use a portion to raise the sheds, and (4) they must use a portion to hold the sheds up long enough for the shuttle to make its passage.

There are three types of harness cams in use on Draper looms. We refer to them as slow changing, medium changing and fast changing cams. The slow changing cams use 105° to change up, 105° to change down, 75° to stand open up, and 75° to stand open down. This uses up the 360° in the circle. The medium cams use 90° to change up, 90° to change down, 90° to stand open up, and 90° to stand open down. The fast changing cams will use 75° to change up, 75° to change down, 105° to stand open up, and 105° to stand open down. It will be noted that the degree timing has just been reversed on the fast moving cams from the slow moving. The slow moving uses 105° to change from up to down, and only stand open 75° for the shuttle to pass. The fast moving cams will only use 75° to change from up to down position, and will use 105° for the shuttle passing time.

When the harness cams are set properly the sheds will be wide open when the crank arms are on back center. Immediately after the crank arms leave back center, the harness sheds will start to change positions, some going up and some going down, and the changing sheds will be in level position in relation to each other when the crank arms are near, or just past bottom center position. This should put the harness sheds wide open when the crank arms reach front center position. In other words, the harness should be set so that, moving up and down, they will be level in relation to each other when the reed is far enough back from the fell so that they will reach wide open position when the reed is in contact with the cloth at the fell. As some cams require more time, or use more degrees, in making change from down to up, and vice-versa, it will require different length gauges for timing the harness cams. When using the fast changing cams the reed would be nearer the fell of the cloth when in level position, and further away from the fell on the slow changing cams. The best way for the fixer to check and time the harness cams is to use a small strip of wood, leather or metal gauge about one-half inch wide and long enough to extend from the front side of the reed to the fell of the cloth when the changing sheds are in level position. The fixer can easily carry a gauge of this type in his pocket, and he



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should have it handy at all times when he is on the job. Checking the harness timing and keeping the harness properly timed at all times will help him a lot towards keeping ahead on his section.

Proper timing of the harness is vitally important for reasons other than just preventing overshots and undershots. If the harness is not properly timed, it will prevent the shuttle from boxing correctly. This can create manifold troubles for the loom fixer and the weaver. Also if the harness is not properly timed it will cause unnecessary breakage of the warp threads while the loom is running, and will destroy the face of the fabric.

Shuttle Boxing

When the hows and whys of loom fixing are being discussed, it is impossible to proceed very far on the subject before we are compelled to mention the vital necessity of boxing the shuttle properly. So many things can and do contribute to the failure of the shuttle boxing correctly. One thing that can happen if the shuttle fails to box properly is that it can contribute to the making of overshots and undershots. If the pickers are not put on the stick as they should be, and the shuttle not boxed correctly, it will prevent the shuttle from traveling on a straight course across the lay. This will cause the shuttle to more readily pass over or under warp threads if they are slightly slacker than they should be. Of course, boxing the shuttle properly means more than just adjusting the front and back binders and putting the picker on the stick correctly. It also means that the reed must be tight in place and in line with the lay end plates and the back box plates. The pick motion must also be set properly. In fact, there are so many things the loom fixer must do, and do correctly, in order to keep the shuttles boxing right that there is not too much loom fixing left for him to do in order to look after a section of looms, because there are so many other parts and mechanisms in the loom assembly that cannot be set up and adjusted properly unless the shuttle is first boxed properly.

Time On The Pick

After checking the shuttle boxing, the fixer should check to determine if the loom is picking on time on both ends. If the pick is either too late or too early it too can cause overshots and undershots. If the pick is too late the shuttle will not track straight across the lay between the warp sheds. This can also cause the shuttle to be late in clearing from between the sheds and some of the warp threads will be slackened enough for the shuttle to pass over or underneath them, making overshots and undershots. If the pick is too early it will cause the shuttle to be driven in between the warp sheds before the sheds are opened sufficiently to receive the shuttle, and the same thing can happen here as just stated above.

Stroke On The Picker Stick

After adjusting the timing of the pick the fixer should turn the crank shaft towards back center until the picker stick has reached its full forward stroke and check to see if the stroke is correct. If the forward stroke of the picker stick is too long it will cause the shuttle to be thrown off of its straight course across the lay. This will contribute to overshots, undershots and many other troubles also.

Talking Shop

S. T. A. Meetings
Feature Group Discussions

One of the highlights of the Spring meeting of the Eastern Carolina Division of the Southern Textile Association—held April 6 at the School of Textiles, North Carolina State College, Raleigh — was a group discussion on weaving and slashing, led by Joseph A. Porter Jr., associate professor in the School of Textiles at N. C. State. The following is a transcript of that discussion.

Mr. Porter: How many of you have used the rubber squeeze roll? How many of you have used rolls made by other than Dayton Rubber Co.?

Mr. C: I have one made by another company. It is too hard and harsh. We have to use it as a back roll and not as a finishing roll. I have a Dayton roll and it is very satisfactory.

Mr. Porter: In comparing the two rolls you prefer the Dayton roll?

Mr. C: Absolutely.

Mr. Porter: What is the difference in the cost?

Mr. C: Very little.

Mr. Porter: Did you cover the Dayton roll yourself?

Mr. C: No.

Mr. Porter: You sent it back to the factory?

Mr. C: Yes.

Mr. Porter: What is the cost, as to the blanket?

Mr. C: The initial cost of the roll was about $500. It might be necessary, after a period of time, to buff the roll but it is very substantial.

Mr. Porter: How often is buffing necessary?

Mr. C: Every 12 to 18 months depending, of course, on local conditions.

Mr. Porter: What numbers of yarn are you running?

Mr. C: From 12s to 18s.

Mr. Porter: What speed warp?

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Mr. C: Around 80 to 85 yds. per min.

Question: Do you have a hot-air slasher?

Mr. C: Yes.

Mr. Porter: The next topic for discussion is slasher air-controlled press rolls. Has anyone any experience using an automatic loading device?

Mr. D: We have the pneumatic squeeze loading.

Mr. Porter: What weight?

Mr. D: We use 150 pounds.

Mr. Porter: What width roll?

Mr. D: The same width as before.

Mr. Porter: How much is the cost of installation where you convert from manual loading to automatic loading?

Mr. F: $640 for one type and $720 for another type.

Mr. Porter: Do you think it pays for itself?

Mr. F: We think it is necessary for the operation of the rubber-covered roll. I am with West Point. It varies from mill to mill.

Mr. Porter: I think it improves the slashing operation. The next topic listed is after-waxing at slashing. Is anyone running any after-waxing in slashing? We are running nylon and are using Waco wax. It is heated with steam.

Question: Is that primarily for synthetics?

Mr. Porter: Yes, we use it for over-waxing or over-dressing nylon. We use from 0.5 to 1.25%.

Question: Would it be of any advantage with cotton?

Mr. Porter: I wouldn't think so, as long as you are getting good breaking strength and have fairly decent size on the yarn.

Mr. Porter: The next subject is nylon loops for shuttles. To what extent are these being used?

Mr. C: We are running them 100% now.

Mr. Porter: On 8¾-inch bobbins?

Mr. C: Yes.

Mr. Porter: Is that an experiment?

Mr. C: I am not experimenting now. I did in the beginning, yes.

Mr. Porter: Are you using two loops or four?

Mr. C: I am using four on some and six on others.

Mr. Porter: Does it depend on the size of the yarn you are running and the loom speed?

Mr. C: Yes.

Mr. Porter: How close do you try to have them fit?

Mr. C: We try to have two of them close together, then the others back a little.

Mr. Porter: Have you tried it on rayon and nylon spun yarn?

Mr. C: No.

Mr. Porter: Only on cotton?

Mr. C: Yes.

Mr. H: Is anyone using nylon loops on the center fork stop motion?

Mr. C: Yes, but we find loops are not as satisfactory as fur.

Mr. H: The loop is much cheaper than fur.

Mr. Porter: Isn't the loop strong enough to hold the center fork up?

Mr. H: We do not get enough tension.

Question: What weight loop are you using?

Mr. H: 40-lb. test.

Mr. Porter: What width loom?

Mr. H: Fifty inches.

Mr. Porter: Do you have tension problems?

Mr. C: We can put enough tension on the nylon so that we don't have any trouble.

Question: How many loops do you use?

Mr. C: Five on some and six on others.

Mr. I: We use three on the back and two on the front. We drill a hole at the top and bottom of the shuttle and put the loop through the holes.

Mr. C: We find it is much cheaper to use loops rather than fur.

Mr. Porter: Is there anyone else who is not using fur?

Mr. K: We are not using fur. We use bristle on our 38s yarn.

Mr. Porter: The next subject is parallel linkage. Is anybody using it?

Mr. C: We have it on X-B-2 looms.

Mr. Porter: What width looms?

Mr. C: Sixty-inch looms. We have not had any trouble. We like it fine.

Mr. L: I do not like the parallel linkage. There are too many parts and they started to throw the shuttle on several of our looms.

Mr. Porter: Did you consider that the fault of the linkage or the fault of the shuttle?

Mr. L: We considered it the fault of the linkage.

Mr. Porter: Have you had that trouble Mr. C?

Mr. C: No.

Mr. L: Throwing the shuttle could come from the type of loom.

Mr. Porter: You put the linkage on the L-Model?

Mr. L: Yes.

Question: What size shuttle and quill?

Mr. L: We were running nine-inch quill.

Mr. Porter: What are you running at Mr. C?

Mr. C: We run an 8¾-inch quill.

Mr. Porter: Is anyone running the laminated type of shuttle or using it for experimental purposes?

Mr. C: We use some.

Mr. Porter: How much more did the laminated fiber-wall shuttle cost? I understand this shuttle is around twice the cost of the regular shuttle but it is not uncommon for it to run from 7,000 to 7,500 loom-hours.

Mr. C: I have some that have run that long.

Mr. Porter: Do you consider this plastic shuttle more suitable for a 60-inch loom than, say, for your sheeting looms?

Mr. M: They do not make the shuttle for the sheeting loom. It is so wide it will not hold it.

Question: Is anyone running the True-Mold shuttle put out by Draper?

Mr. C: We run Draper True-Mold shuttles.

Mr. Porter: What length quill?

Mr. C: Eight and three-quarter inches.

Mr. Porter: What width loom?

Mr. C: We run these shuttles on 46-inch looms.

Mr. Porter: How many of this type of shuttle are you running?

Mr. C: I am running 12 on a trial basis.

Mr. Porter: How does it compare with wood?

Mr. C: I would say they run two or three times longer.

A Member: If the plastic shuttle were the same price as dogwood, would you prefer them?

Mr. C: I wouldn't buy another dogwood shuttle.

Mr. Porter: What about the boxing?

Mr. C: We get better boxing and we do not have the variation in total weight from full quill to empty quill due to the extra weight of the laminated shuttle.

The following is a transcript of a group discussion on box weaving at the Spring meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association. The meeting was held April 13 in the Hylton Building, Dan River Mills, Danville, Va., with R. H. Turner, general foreman of weaving and slashing at the Towel Mill of Fieldcrest Mills Inc., Fieldale, Va., acting as discussion leader.

Mr. Turner: We have had over the industry for several years much discussion of the first question I am going to ask. I expect that all of you are familiar with it, but I'd like to hear some comment on it. The question is: "Which is better on the box end, a laminated or a hickory-wood picker stick?"

Mr. B: Some of the fellows like the hickory stick because it has some flexibility to it.

Mr. Turner: We have heard this said often in the mill, that it is a lot cheaper for your stick to break than for your box loom to tear up. That I am sure is true, but is there any way in which we can run the loom safely and still use the laminated stick? How much longer do they last?

Mr. C: There is a difference of opinion, but some say eight to ten times.

Mr. Turner: Is there any way of eliminating some of the tear-ups we have when the loom hangs and the laminated stick does not break? Something has to give when that happens.

Mr. D: I ran the first laminated stick made by Jacobs some time ago. It ran very successfully on jacquard looms.

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Mr. Turner: Was that box at one end?

Mr. D: Both ends.

Mr. Turner: Was that four by four?

Mr. D: Four by one. It ran very successfully. The longest I recall was 18 months. It would wear down to where it was the size of a coat hanger but would never break. It was very successful.

Question: How do you hold the stick on there? By a screw, or what?

Mr. D: There is a little contraption, I don't know what they call it, but is it made so that it does not lose its grip at any time; it tightens up.

Mr. Turner: Did you try using a picker screw in them at any time?

Mr. D: Yes, but it would snap off.

Mr. Turner: It was not good?

Mr. D: No.

Question: What trouble did you have running the box loom with a laminated stick rather than a hickory stick?

Mr. D: Well, it has been a long time ago and I don't recall any particular difficulties. We would call our loom fixers in if we had any trouble. At that time those sticks were $4.95, I believe. A wooden stick was about 78 cents, as I recall. I don't know the price today.

Mr. C: A plain hickory stick will start at about 48 cents apiece.

Mr. Turner: Going back to the question that was asked a few minutes ago, back in 1943 a friend of mine called me and asked me why I did not put on laminated sticks. At that time I didn't know too much about them, not many people did. I believe they were then selling for $2.00 apiece. We had 200 looms there, and when I put on those sticks I almost broke up the company, because the looms hung up.

A Member: I believe the reason more companies are not using more laminated sticks is that, while you save on picker sticks, the expense is so great when your box looms hang up that it doesn't pay.

Mr. Turner: Did you have the bat-wing pick motion on the loom?

Mr. E: Yes.

Mr. Turner: That is what we had, and we had quite a bit of trouble keeping the shoe tight. Something has to go when it hangs. Has anyone anything to add to that? If not, let's go on. The next question is: "What success have any of you had with the fiber sheath on the picker rod?"

A Member: We have tried a few but took them all off because it beat up the picker.

Mr. Turner: Let me ask this question. You have to oil the picker rod, of course, to keep the picker moving. Have you had any trouble with the fiber sheath, with the oil coming up there?

A Member: We had quite a bit of trouble. The oil would get hot and come through.

Mr. Turner: Has anyone else had experience with this?

A Member: We have had them on ten or 12 looms but have not had enough experience for me to say much about it.

Mr. Turner: That is like a lot of other things on box looms. When the man is there showing it to us it looks so good that we almost go overboard. This thing looks good, but every loom fixer who has anything to do with it says he cannot box the shuttle with them. The loom fixers say they either gum up or they are just too slick.

Some 350 mill men and suppliers attended the Spring meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association. The meeting was held at Danville, Va., with Dan River Mills acting as host.

Mr. F: What is the biggest trouble you have with that on the picker rod?

Mr. Turner: The picker will get to sticking on the rod, and you have to come along with something to wipe it. Then you have a lot of trouble with breaking.

Mr. F: What causes the breaking?

Mr. Turner: That's what I am trying to find out.

Mr. F: We have a little experiment running now on the S-6 loom. We have the idea that maybe with a stainless steel rod we can stop that breaking.

Mr. Turner: I'll tell you what we are doing with C-5 looms. We're putting on a larger picker rod. Of course, when we do that the hole in the picker has to be a little larger. Has anyone here tried a larger picker rod?

Question: What size?

Mr. Turner: We are trying ⅜ inches.

A Member: We are using 7/16-inch rods.

Mr. G: We have had some experience with stainless steel rods. We ran short of rods and had some stainless steel ones made in the machine shop. They are still running today, after about a year.

Mr. Turner: Do you have any trouble with sticking?

Mr. G: No.

Question: Has anyone tried an octagon-shaped rod?

Mr. Turner: Not that I know of.

A Member: It has more sharp edges.

Mr. Turner: Let's go on to another question. Are plastic or aluminum harness sheaves superior to wood? What are your ideas as between plastic and aluminum sheaves? I don't think too many people are using wood, are they?

Mr. H: We are still using a good many. We have held back on the others because of the price.

Mr. I: We have used plastic sheaves. They didn't wear too well.

Mr. Turner: What was the trouble?

Mr. I: It would wear and fall down. We have gone back to wooden ones altogether.

Mr. Turner: In your opinion, is the wood better?

Mr. I: We are getting better service out of the wooden ones now than we did out of the plastic when we were using them.

Mr. Turner: I'd like to give you some of the experience we have had in the last few months. We put on plastic sheaves. When we took the old sheaves off, we examined the rods and they looked good, so we just put them on again. Then the plastic sheave would wear out rapidly. When we put on a new rod we had no trouble; none came loose, and none wore out. So we think our problem was that, although our old rods looked good, there must have been some burrs on them to eat into the plastic. They are giving us good service now.

Mr. D: Our problem is heat on the plastic. But the aluminum does not heat up.

Mr. Turner: On your plastic and your aluminum sheaves do you have an oil-lite bearing in the center?

Mr. D: Yes.

Mr. Turner: On the plastic we have had a little black spot come on there, and we can't get it out.

Mr. D: It is graphite out of the bearing.

Mr. Turner: We are making quality towels. Of course, with very high-priced fabric like that little things of that nature hurt us more than they would on 40-cents-a-yard filament. Do you like the aluminum pretty well? Have you had any trouble with them?

Mr. D: No. In fact, they run so well that we put it down as our project this year. You see, our looms run 173 picks a minute, and plastic sheaves get tremendously hot. I think if the people that make the plastic sheaves could design them so as to put ventilation holes in them it would be a fine thing.

Question: Do you think there is friction there at the harness, that you have them fastened so tight that they get hot?

Mr. D: I would not think so.

Mr. Turner: It seems to be your opinion, then, that you would be better off with aluminum, although they cost three times as much?

Mr. D: Yes. I think maybe if the loom ran slower, you would not have that trouble.

Mr. Turner: We will leave this subject for a while and talk about quality. The first question on that subject is "How do you prevent magazine-end jerked-in filling?" On terry cloth, we don't have to worry too much about jerked-in filling, because it just makes our towel heavier. But we do have other problems. If an end breaks on a five-dollar towel and runs just a few picks it is a second. How do you prevent magazine-end jerked-in filling?

A Member: I don't know of anything better than the Livermore thread cutter.

Mr. Turner: Do you have any of them?

A Member: Yes, we have several hundred on old gingham looms.

Mr. Turner: I have never seen them on anything but the C-5 and looms like that. We are speaking about the magazine-end now, particularly the jerked-in filling when it changes filling.

A Member: The thread cutter eliminates almost all the jerk-in.

Mr. Turner: In my opinion the Livermore thread cutter is the best thing I have ever seen to eliminate jerk-in on transfers. The next question is: "What do you do about set marks or start marks?" What kind of let-off are you using?

Mr. K: The Crompton & Knowles automatic let-off.

Mr. Turner: Do you find most of your set marks are due to the setting of the whip roll or the sand roll or adding harnesses?

Mr. K: In some cases set marks can be found in one harness and and in others you will find none.

Mr. Turner: Do you find that a smaller percentage of set marks is caused by let-offs rather than by other conditions?

Mr. K: If the let-off is in good condition you will find fewer set marks from it than from other causes.

Mr. Turner: How about the tying of your harness? Do you find that has a good deal to do with it?

Mr. K: Well, that has some part in it.

Mr. Turner: Does the condition of your room have anything to do with it?

Mr. K: That will affect it.

One of the highlights of the Spring meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association was a group discussion on slashing led by W. M. Kirby Jr., superintendent of Winnonah Cotton Mills, Lexington, N. C.

Mr. Turner: I have found that the condition of the room will have quite a bit to do with set marks. In fact, I am not sure but that if all set marks were traced to their source, you might find that the condition of your room might be a big factor in controlling the trouble. What are your ideas on the advantages of fur, bristle or nylon cord in controlling your filling, whether it be cotton, rayon, nylon, worsted or wool?

Mr. L: We run a heavy ratine and had a lot of trouble with strip marks in it. Bristle almost eliminated the strip marks.

Mr. M: We have quite a bit of our sheeting on nylon and have had good results. You do find fuzzy balls that are not desirable.

Mr. Turner: Do you have center forks on them on those particular looms?

Mr. M: No.

Mr. L: You have center forks, don't you?

Mr. L: Yes.

Mr. Turner: On this heavy ratine did you have trouble with the center stop motion?

Mr. L: No, I didn't have trouble. We use bristles when running heavy filling.

Mr. Turner: We have found that it is very difficult to handle the filling. We run several different types, kinds and numbers of cotton, rayon and acetate. We find that we can handle our filling much better with fur than with anything else.

Mr. L: We use fur on all light counts.

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Mr. Turner: Do you have any program for shuttle polishing?

Mr. D: We operate under a specialized maintenance program. Our shuttles are dressed 25 times a year.

Mr. Turner: Do you use any shellac or shuttle dressing?

Mr. D: Yes, shellac.

Mr. Turner: Is the shellac mixed with oil?

Mr. D: That is right, approximately 20% shellac and 80% oil.

Mr. N: We do not have a specialized program, every loom fixer at the beginning of the shift goes over his shuttles and tests the setting, tests the boxing, the shuttle eye, etc.

Mr. Turner: What would your recommendation be?

Mr. N: I do not know of anything other than going over a third of the shuttles at the beginning of each shift.

Mr. Turner: Your men go over all of your shuttles at the beginning of the shifts?

Mr. N: That is right.

A Member: We go over ours once a week.

Another Member: That is what we do.

Mr. Turner: I am wondering if these rayon boys are not smarter than we are, in going over them every day.

Mr. N: Now, we do not always get them every day. Sometimes something comes up that we can not do it.

Mr. Turner: I know, and sometimes we cotton boys do not get it done every week. But wouldn't it help us in many ways if we could go over our shuttles every day?

Mr. D: We are going to the molded shuttle.

Mr. Turner: Does this molded shuttle require less care?

Mr. D: That is right.

Mr. Turner: It is a heavier shuttle. You can not get one of the same size or weight you are running. What are you going to do about that?

Mr. D: We have not experienced any difficulty.

Card setting and even-draft drawing was one of the subjects treated in eight different group discussions during the Spring meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association. Leading discussions on this topic was Charlie Ward, Highland Cotton Mills, High Point, N. C.

Mr. Turner: Have you had any other problems with that shuttle Mr. D?

Mr. D: We had the same problem with the shuttle as with the picker sticks, they run slick.

A Member: We have Draper shuttles. Does anybody else make it?

Mr. Turner: So far as I know we are the only box loom mill in the textile industry that has them. We have them for C-5 looms and get them from Southern Shuttle. What saving did we make there, Mr. Simons?

Mr. Simons: The molded shuttle will cost double what the dogwood shuttle costs but runs four times as long.

Question: Do they run slick?

Mr. Turner: We have some shuttles that have been running for a year, and they look like new now. They are actually slicker than when they were put in.

Mr. D: They told us not to do a thing to them other than rubbing with crocus cloth.

Mr. P: Are you using Duramold or Truemold?

Mr. D: Truemold.

Mr. P: What kind are you using, Mr. Turner?

Mr. Turner: We are using four or five different shuttles in our mills. The next question is: "Do you schedule any specific preventive maintenance for the loom fixer?"

Mr. Q: We have the fixers check the loom when a new warp is tied on.

Mr. Turner: Some of you rayon weavers have looms on which the warp runs two months. What do you do?

A Member: We use that same procedure—check when the warp is out.

A Member: We have a check card made out for each loom listing all the items and the settings of the loom which the fixer is to go over.

Mr. Turner: How do you schedule lubrication, time and method?

Mr. R: We lubricate when the warp is out.

Mr. S: We have a frequency schedule for lubrication.

Mr. T: We have a definite schedule. We grease when the warp is out and oil as scheduled on every shift.

Mr. Turner: My opinion is that oiling is a highly skilled job. It should be followed up by the supervisor every day. The job should be filled by a man out of whom you intend to make a loom fixer. He should have taken a course under a lubrication engineer. What do you do about oil stains on rayon?

A Member: We now try to pick men with experience in weaving and loom fixing for oiling jobs. Before we did that, we had quite a bit of trouble with oil stains on the cloth.

Mr. Turner: When you are blowing off looms on rayon, how do you prevent oil and grease from getting on the cloth?

Mr. R: We feel prevention of oil stains is important enough to have prompted us to go to anti-friction ball bearings.

Mr. Turner: What kind of schedule do you have for cleaning your looms?

Mr. D: Our schedule is set up so that we blow, wipe and mop the looms. Each operator will blow 100, brush 10 and mop 20 looms in an eight-hour shift.

Mr. S: What is being used to clean the looms?

Mr. Turner: We use Sunray. One mill uses a little wagon carrying compressed air and a cleaning fluid tank. The cleaning fluid is sprayed on the looms. It works very well.

Question: Do they use it at warp-out?

Mr. Turner: They use it all the time.

Question: What does it do to the cloth?

Mr. Turner: Apparently, it does not hurt the cloth. I don't know what kind of fluid they use but it is even effective for cleaning drop wires.

Question: Has anyone tried vacuum cleaning?

Mr. U: We tried vacuum clean but found that our receptacle was not large enough to keep from being choked.

Question: How big was the receptacle?

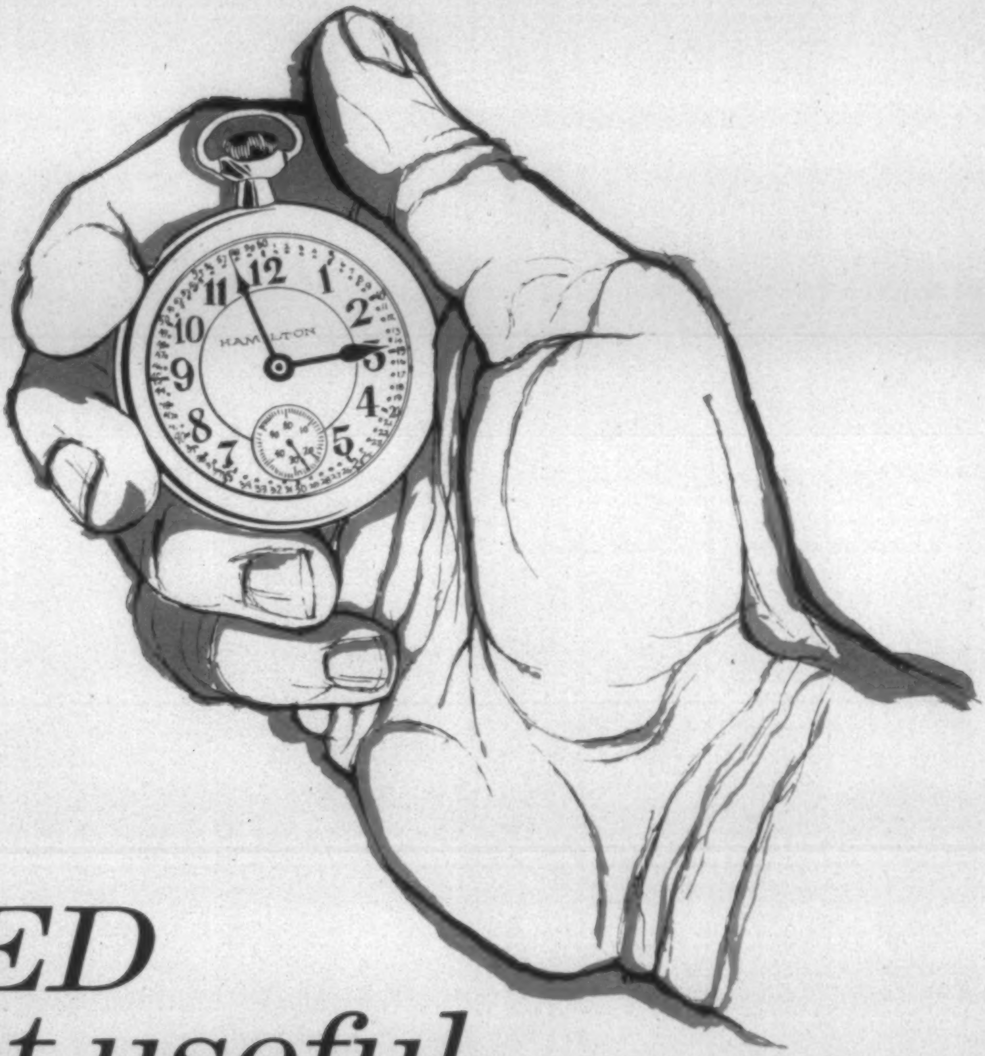
Mr. U: It was about the size of a barrel.

Mr. Turner: If a warp is tied in with a tying-in machine the harness may need cleaning at times. Do you have any cleaning schedule for this?

A Member: No, the weaver cleans the harness when she stops the loom to clean off the hand rail.

Steel Heddle To Offer TV Show

Textile plants of the Piedmont area of the Carolinas will be saluted in a new series of programs beginning May 28 at 10:30 p. m. on WFBC-TV, Channel 4, Greenville, S. C., under the sponsorship of the Steel Heddle Mfg. Co. of Greenville and Philadelphia, Pa. The program, to spotlight one textile plant in the area each week, is the textile equipment company's first venture into television and it is believed they are the first in their field to use television as an advertising and public relations medium. The first firm to be saluted will be the Dunean Plant of J. P. Stevens & Co. in Greenville. Other plants to be featured are mills of the Abney, Deering Milliken, Alice, M. Lowenstein, Greenwood and Kendall groups.



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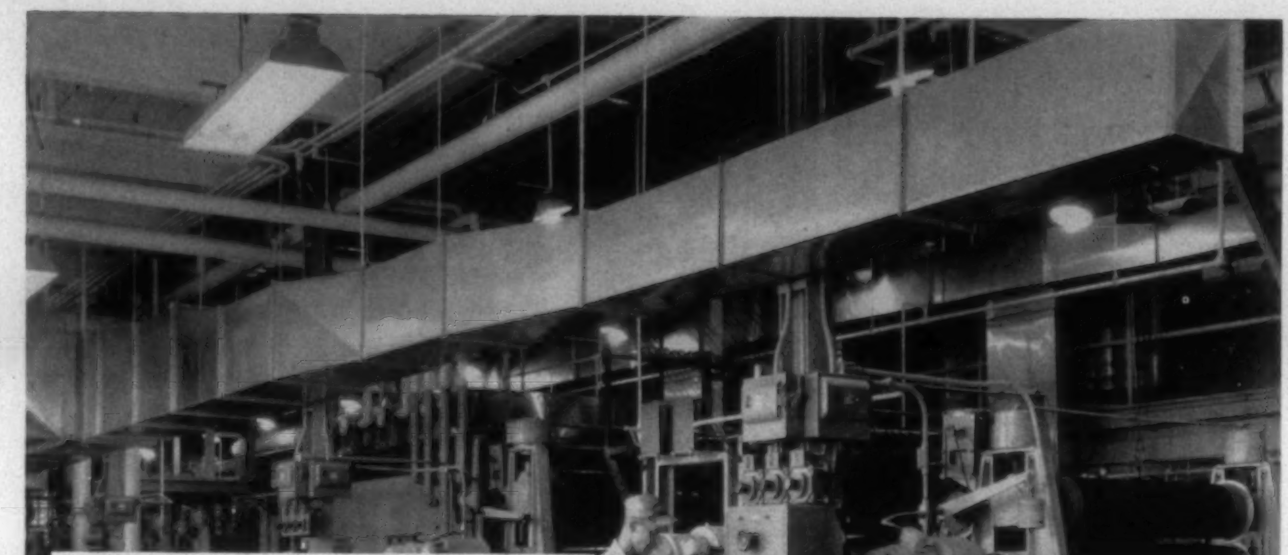

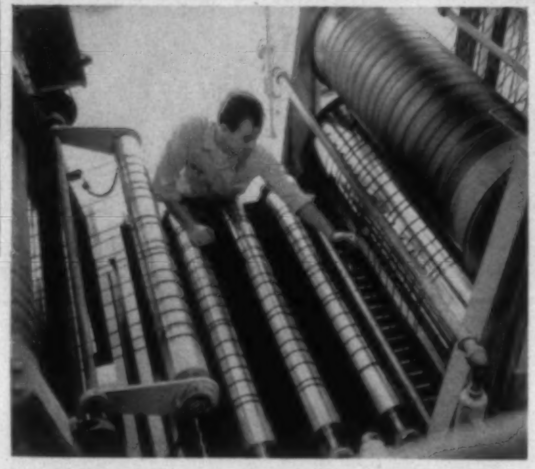

In boil-out section, warp passes over Stainless rollers.

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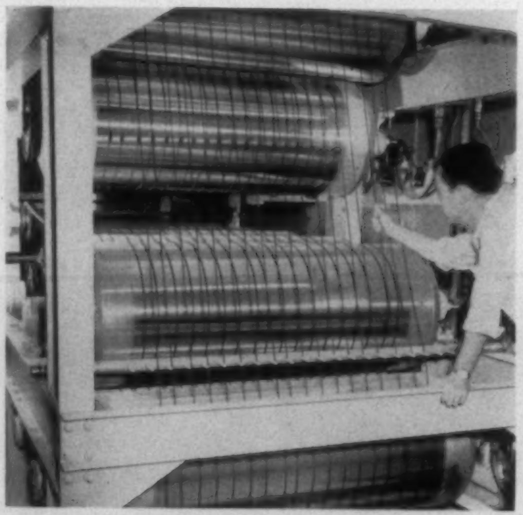

86 Stainless Steel dry cans are heated by 45 psi steam.

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Bleaching, Dyeing & Finishing

Heat Economy In Textile Processing

By LEO WALTER, Consulting Engineer

How can your steam producing equipment be made more efficient? This article points out places where you may be using excessive amounts of steam and suggests some steps to take to correct this undesirable condition.

MODERN methods of scouring, washing, bleaching, dyeing and drying require considerable amounts of heat. Since production people are usually only concerned with volume of output it may be that heat, and therefore fuel, is sometimes used lavishly in some departments. As long as quality and quantity of goods are satisfactory, people may lose sight of whether thermal efficiency of a department or the whole mill is good, bad or indifferent. Invisible waste may go on for years with the fuel bill higher than really necessary.

Where steam or hot water is used, such as a bleachery, dyeing operation, or in integrated mills where finishing is performed, there may be two main sources of waste of heat. One is the power and boilerhouse. The other is the finishing department. Another source of low thermal efficiency but one which is not quite as important is the operation of space heating installations.

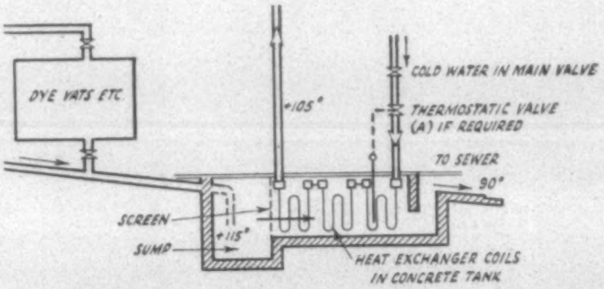
Power and Heat Economy

One of the frequent troublemakers in textile mills is lack of sufficient boiler capacity. The production manager of a dyeing department may often have to call on the plant engineer to produce more steam. This is the case, for example, for starting-up in the morning when all the steam consuming equipment in a dyehouse is being put into operation. If the boiler capacity is too small for peak loads, larger boilers may have to be installed. Possibly the use of a steam accumulator will suffice. In recent years it has become possible to adapt existing types of boilers with a device enabling their use as steam accumulators. Staggering the demand for steam is another means for bringing peak boiler loads down.

Fluctuating steam supply pressure is the cause of much thermal inefficiency in the mill. A special study may be undertaken to determine which lowest boilerhouse pressure would be permissible. By installing a precisely working steam pressure regulator in the steam supply line, the pressure to steam consuming equipment can be held steady. This lowering of steam supply pressure may necessitate installation of additional heating surface in driers.

Steam pressure of a new boiler in a textile plant should be as high as possible. This will enable the use of back-pressure steam from turbines in the finishing processes. Installing a high-pressure steam turbine to the existing boilers may add as much steam of medium or low-pressure as is required. A new back-pressure turbine may be installed which will supply all processes with back-pressure and exhaust steam.

Thermal efficiency of bleachery and dyehouse can also be increased by installing accumulators for hot condensate as the example in Fig. 1. Any excess steam can thus be utilized in heat exchangers for generation of hot water to be stored for use at a later time.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THERMOSTATIC VALVE (A) IF REQUIRED
TO SEWER
90°
SCREEN
+115°
SUMP
HEAT EXCHANGER COILS IN CONCRETE TANK

Fig. 1—Heat exchanger set in concrete pit. Hot effluents from scouring machines, bleachery and dye vats may be utilized for generation of warm water.

Measures For Improvements

Many improvements are possible in thermal plant efficiency. Insulation may often add considerable improvement. Survey all steam and hot water pipes, the condensate return piping and all hot surfaces of heated equipment and insulate

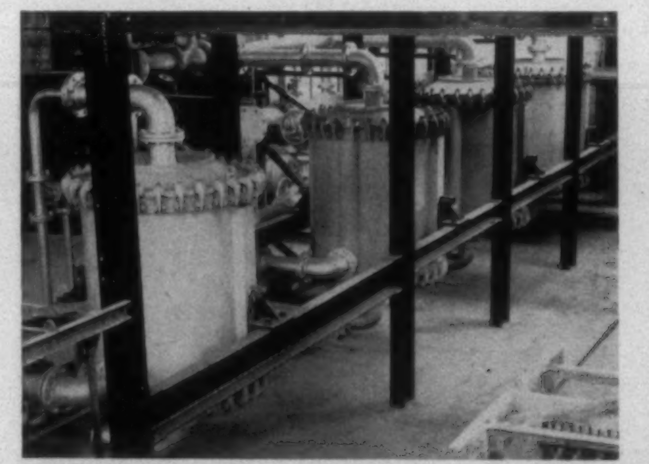

Fig. 2—Installation of Rosenblad-type heat exchanger utilizing hot effluents for pre-heating of other liquids.

wherever possible. Since open liquor surfaces of dye vats waste heat covers or hoods may help considerably.

Check steam traps frequently. Every blowing trap is a constant source of waste heat and fuel. Keep the specific steam consumption as near to standard figures as possible. Find out steam used per unit processed or produced in the plant. Compare the findings with the standards. Measure steam and condensate for every larger steam heated piece of equipment. Seek out the "steam eaters" in the plant and take corrective measures.

Utilize waste heat from hot effluents by installing heat exchangers. An example is shown in Fig. 2. Washing machines usually discharge hot waste liquors. The heat lost could be used for pre-heating of fresh dye liquor and other purposes. Warm exhaust from hot air driers can be utilized for pre-drying. Cooling water and hot exhaust gases from Diesel engines may provide, with efficient waste heat utilization, large volumes of hot water for production purposes.

The above mentioned and many other measures may be used for improving thermal efficiency of textile processing. The basis of all the measures for better thermal efficiency is a survey of steam production and utilization, carried out by competent persons. A thermal survey may very well pay for itself out of savings from a reduced fuel bill in a short period of time.

Cotton In Coated Fabrics

By WILLIAM M. SEGALL, Utilization Research Division, National Cotton Council

Coated fabrics have many and varied end uses and methods of production. This article considers these aspects as well as gives an examination of the quality considerations in the use of cotton for backing fabrics and tells how cotton's wide margin of superiority in the field can be maintained. It is a review of the highlights of a booklet written by Mr. Segall and published last December by the National Cotton Council.

SINCE the introduction of the first coated fabrics, cotton cloth has been the principal material used as a base for the coatings. Cotton textiles have continued to hold a high proportion of this market, chiefly because cotton's properties fulfill the requirements of this use better than do those of any other fiber. The quality of coated products has been continuously improved through the research efforts of the coaters and the manufacturers of the chemicals that make up the coating compositions. However, in spite of cotton's greatly improved quality and stronger competitive position, with respect to certain natural materials such as leather, a number of factors have resulted in the introduction and advancement of new competitors in this field.

Although the origin of coated fabrics is lost in antiquity, the coating industry, as such, is probably not much over a hundred years old. The first products, designed to substitute for leather, have been vastly improved so that they now surpass leather in several desirable characteristics. New and improved qualities have been developed in coated fabrics, qualities which make their application possible in many specialized markets and uses.

The end use of a coated fabric determines to a great extent the nature of the coating composition used, and this in turn often dictates the method of application to be employed. Some of the larger plants produce two or more of the major types of coatings. However, the common practice of firms to specialize in certain markets has resulted in the development of five general divisions in the industry. These divisions are based on the following types of coatings: (1) resin, (2) rubber, (3) pyroxylin, (4) oil, and (5) starch.

The most important of the five types in the present market is synthetic resin or vinyl coating. The vinyl coatings supply about 40 per cent of the present market. Rubber coated fabrics amount to about 20 per cent of the market for coated products. Rubber coating goes into shoe fabrics, hospital and crib sheets, convertible auto tops, tarpaulins and many other trades.

Coating Methods

Frequently a preparatory treatment of the fabric is required prior to the actual coating. Cotton goods are often scoured and bleached, dyed, desized or otherwise processed for better coating and for improved final product. Most coaters prefer to do this preparatory work in their own plants in order to maintain the closest possible control of the quality of all operations.

Spread or Knife Coating—This method of coating is the most widely used by the coating industry. The spread method is suitable for application of pyroxylin, oils, vinyl type resins, and natural and synthetic rubber. The fabric is drawn under a stationary blade. The compound is poured upon the fabric in front of the stationary blade. The blade serves to spread the coating uniformly over the surface of the moving fabric. Coatings of a given desired thickness and smoothness are achieved by the regulation of the tension and speed of the fabric, the angle and thickness of the blade, and the viscosity and solids content of the compound.

After leaving the spreading knife, the fabric generally travels through one of several types of ovens, in which the film is formed by solvent evaporation, oxidation, fusion, curing or a combination of these effects. Additional coats or an embossing pattern may be applied at some stage of the operation.

Calender Coating—The calender coating method is second in importance to spread coating and is adaptable to use of rubber and synthetic resins. This method permits relatively high rates of production, and involves quite a heavy capital investment.

In calender coating the fabric passes between the two

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lower rolls of the calender and is combined with a film on the upper of these two rolls. The film is formed by feeding a plastic mass of compound between two upper rolls of the calender. In some cases, the fabric may have a base coat applied by a spreader blade, but usually only one coating is put on by the calender itself. The setting of the calender rolls controls the film thickness.

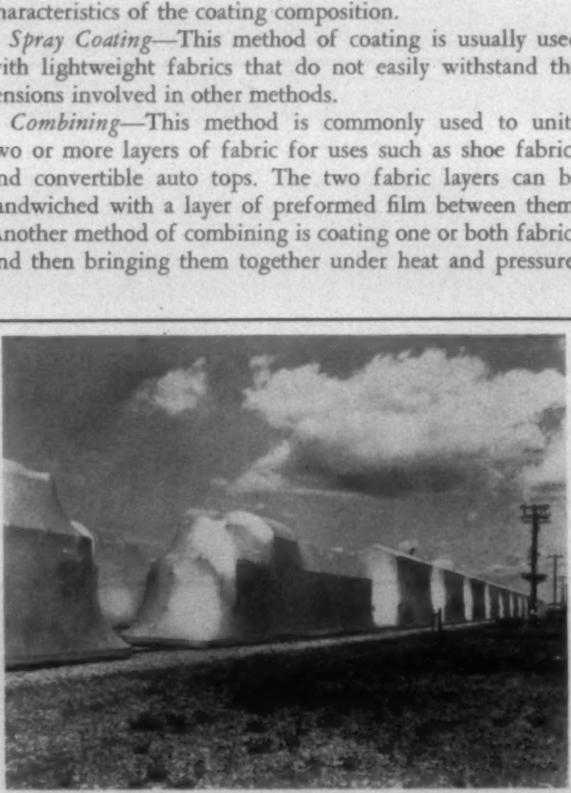
After calendering, the coated fabric is passed through an oven at elevated temperatures. The coating compound is cured or fused in the oven. This product may also be embossed in a wide range of patterns. The so-called Spanish or two-toned finish, similar to morocco leather, is often used.

Dip Coating—When impregnation or saturation of the fabric is not objectionable and when both sides are to be coated, the dip coating method is usually used. Thin oil-coated cloth for rainwear is sometimes produced by this method. Starch coatings are frequently applied by dip methods, sometimes in conjunction with spreading.

In dip coating the fabric is passed through a tank containing the coating solution. From the dip tank the fabric goes through doctor blades or some sort of mangle, for removal of excess coating material and the development of a smooth film. Curing is usually one or another of the processes generally used in the other coating methods. The degree to which a fabric will be penetrated by the coating compound depends on the openness of the fabric and the characteristics of the coating composition.

Spray Coating—This method of coating is usually used with lightweight fabrics that do not easily withstand the tensions involved in other methods.

Combining—This method is commonly used to unite two or more layers of fabric for uses such as shoe fabrics and convertible auto tops. The two fabric layers can be sandwiched with a layer of preformed film between them. Another method of combining is coating one or both fabrics and then bringing them together under heat and pressure.



COTTON AND ALUMINUM TEAM UP—Aluminum, a metal of the modern age, and cotton, which man spun and wove before he could read or write, both find their way into some rather odd corners. For instance, the Army Transportation Corps. now "mothballs" its locomotives in aluminum. The mothballing begins by covering the engines completely with osnaburg. Coats of plastic and tar are then sprayed over the cloth, and aluminum paint is applied. The resulting cover is effective against all types of weather, and a $90,000 piece of equipment is protected at an average cost of $2,200.

Lamination—This method is in fairly wide use in making upholstery materials. Lamination is combining a preformed film with a single layer of fabric under heat and pressure. The penetration obtained in lamination is much lower than that achieved by coating. There is more opportunity for the characteristics of the backing to contribute to the finished product.

Conclusions and Outlook

Since 1947 the potential market for coated fabrics has grown tremendously. The actual consumption, however, has remained essentially constant at about 300 million square yards. This fact is chiefly due to increased competition from unsupported film and sheeting. Cotton holds, by far, the greatest part of the market for backing fabrics and, for most uses, its superiority will continue.

The most important competitors of cotton in the field of backing materials are synthetic fibers and paper. Cotton coated fabrics face competition from unsupported film and sheeting and from leather. Although the balanced blend of excellent characteristics offered by cotton place it high in industry and consumer preferences, specialized properties of competitors allow them to make serious inroads in certain markets.

An examination of the quality considerations in the use of cotton for backing fabrics leads to the following conclusions:

(1) The cotton fiber is better adapted to developing high bond strength between film and fabric than any other textile fiber in general coating use.

(2) Bulk or body in cotton textiles is desired in many applications of coated fabrics, but in some uses the requirements of strength in combination with low bulk or low weight place cotton at a disadvantage relative to continuous filament yarn fabrics. Deficiencies in other desirable qualities have acted to restrain the expansion of the continuous filament synthetics and paper in these markets of cotton, at least up to this time.

(3) For attainment of a satisfactory end product, backings of maximum smoothness are sought by the coating industry. Much can be done to improve the smoothness of cotton fabrics through development of new constructions and reduction in the number of defects in cloth now being offered. Continuous filament synthetic fabrics and paper have an advantage in this characteristic over cottons, although other shortcomings prevent the coaters from taking full advantage of this property.

(4) Sizing in cotton fabrics is detrimental to good film adhesion. Coaters feel that there is much room for improvement in the service that the cotton industry can give them on control of sizing and other non-fibrous impurities in cotton fabrics.

(5) The properties of cotton are well suited to the construction of fabrics that give controlled dimensional properties. The disadvantages of the synthetic fibers in stretch and dimensional stability are serious drawbacks to their use in coated fabrics.

(6) Cotton produces fabrics of high flex resistance and a wide range of flexibility characteristics, such as softness, hand and body. Some of the softer fibers permit the construction of light fabrics with better drape characteristics than does cotton.

(7) Cotton fabrics generally have a high serviceability

ating for coating use, but their use may be further increased by improvements in methods for adding mildew and flame resistance. Improvement in the tear strength of lightweight cotton fabrics is considered important in several applications of the coated product.

Cotton's wide margin of quality superiority in coating uses can be maintained by the vigorous prosecution of an adequate research program. The cotton fiber is better adapted than any other to coating, and the deficiencies in cotton fabrics do not appear to present insoluble problems. The improved products which have been produced by the use of vinyl coatings have met with excellent consumer acceptance. Greater sales promotion of these products by both the coating industry and the cotton textile industry will strengthen and may increase the market for cotton.

Members of the coating industry say that many of their problems with cotton could be solved by setting up a mechanism to provide better co-operation between the two industries. At present, most coaters are using as a standard for cotton greige goods, Specification P of the Worth Street Rules, which corresponds to Commodity Standard CS-32 of the Department of Commerce, and A.S.T.M. Standard D334. There is some sentiment for revision of these standards, but the feeling is by no means universal.

Vigoureux Printing Method

An improved technique for vigoureux printing of wool, which will substantially decrease the time needed for dye fixation and increase depth of color achievable, has been perfected by the Commonwealth Scientific and Industrial Research Organization of Australia, Dr. Gerald Laxer, director of the Wool Bureau's department of science and technology, announced recently.

The improved method involves no change in the sequence of events and no changes in the machinery used for normal vigoureux printing, Dr. Laxer said. The method involves the addition of benzyl alcohol or other suitable solvents to the dye paste at the rate of one-half to one gallon of benzyl alcohol to ten gallons of paste. This replaces certain unnecessary constituents used in conventional formulae, and no additional costs should therefore be involved, Dr. Laxer stated. By using a suitable solvent and increasing the pressure of saturated steam, it is possible to fixe the dye in five to 20 minutes, depending on the steam pressure and type of dye used.

Vigoureux printing is done on slivers or slubbing fed through a machine that has a roller with raised bars. The wool is impregnated with the dye when it comes in contact with the revolving bars. After printing, the wool is wrapped with wet covers to prevent the paste from drying out prior to steaming.

Any dye which is more soluble in benzyl alcohol, or in any other solvent used, than in water can be applied with advantage by this method, providing the fastness properties of the dye are satisfactory. Dr. Laxer pointed out that, in general, the properties which confer high wash fastness on a dye also make it soluble in benzyl alcohol.

Premetallized dyes are particularly suitable and are recommended in preference to chrome dyes. However, the somewhat alcohol-insoluble chrome dyes can be used if a levelling agent is added to the paste. Many acid dyes are also suitable. Saturated steam, available in most mills, at high pressure fixes the dye quickly and acetic acid in the formulae prevents alkali damage.

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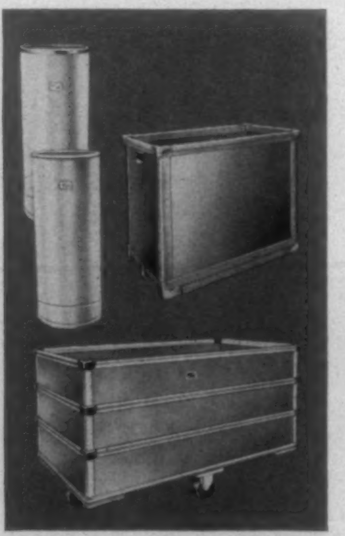

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Maintenance, Engineering & Handling

The Production Twins:

Better Lighting—Higher Profits

By D. R. PHILLIPS, General Electric Co., Cleveland, Ohio

What can improved lighting do for you? The following paper—presented last Fall at the Conference on Electrical Equipment for the Textile Industry at North Carolina State College—points out that good lighting results in increased production and decreased costs; improved quality and less spoilage; improved efficiency and higher morale; improved cleanliness and fewer accidents.

NOT many people realize what a pronounced effect light has upon the human being. We all realize, of course, that if it were not for light we could not see. However, light does much more than this. It affects us both physiologically and psychologically. Thus, if there is good lighting, workers can see better and they feel better. As a result, their work improves.

Laboratory work has brought out a relationship between our human resources and seeing. As light is increased, within limits, seeing becomes easier and more energy is expended in useful work. Less energy is expended in useless work under better lighting conditions which leaves a greater reserve of energy available.

Consider the results of the relighting of the weave rooms of the Uxbridge Worsted Co. Realizing the importance of lighting, this company doubled the illumination level, going from 16 to 32 footcandles. When this was completed the company's production level increased more than four per cent while their mending costs were reduced by one-quarter. Not satisfied with these results, Uxbridge relighted the weave room again. This time the level of illumination was raised to 52 footcandles and production went up another four per cent and mending costs were still further reduced. The company was confident that the production curve had not yet leveled off and went ahead with plans to relight once more. This time the level of illumination went up to 70 footcandles and the benefits continued to roll in. At the time of this writing the company is again relighting, this time to over 100 footcandles, in order to further extend the benefits which have already been derived.

When illustrated graphically the production curve closely approximates the increased amount of "useful work" when light is increased, as mentioned previously. Speaking of graphic illustrations again, the mending cost—which amounts to an index of the number of errors—closely follows the curve of reserve sources. As less energy is expended on useless work, a greater amount of energy is left in reserve.

Another aspect of better lighting is its effect on accidents. One of the more famous tests in this regard concerns the Allis-Chalmers Erection Plant. This is, of course, a non-textile installation; however, since it concerns men and machines, the results should correlate with textile processing plants. The workers in this plant had a high accident rate and the cause was felt to lie in the somewhat underlighted conditions which prevailed. It was decided to relight the shop. Considerable improvement was noted. The relighting was supplemented by a painting job which further improved conditions. The relighting, alone, reduced the company's safety record by one-third. Painting reduced the accident rate by an additional 16 per cent. The combination of relighting and painting had reduced accident frequency by almost one-half.

Whenever and wherever there is moving machinery, an increased danger of accidents exists. Accidents are one of the more costly expenses in a textile plant. Good lighting results in reduced accident rates and the economics of the situation should not be hard to understand. It must be recognized, however, that good lighting means more than adequate footcandles. If plenty of light of the wrong type is provided, the result is often a lighting system which is as bad as one which produces too little light. Proper textile lighting means sufficient *quality* as well as *quantity*.

The fluorescent lamp development has probably done more to improve textile lighting at an economical cost than any other development in light sources. The lighting requirements in most textile plants are for uniform illumination with a minimum of shadows. Most of the lighting equipment is mounted relatively low. These conditions make the fluorescent lamp a "natural" for textile installations. It affords a means for obtaining quality lighting and its high efficiency lowers lighting costs.

Fluorescent lamp developments have been numerous since the introduction of the 40-watt pre-heat lamp in 1939. The instant-starting slimline was the next development. For an eight-foot, two-lamp fixture, the slimline system has only seven parts compared with 22 for the 40-watt pre-heating system. Thus, reduced maintenance costs are realized. In addition, the slimline lamp produces more light per watt.

A different type of 40-watt lamp has been introduced recently. It starts almost instantly, requires no starters and has the economics of the pre-heat lamp. This is the rapid-start 40-watt lamp. Because of these many advantages it may well replace the 40-watt pre-heat and the 40-watt instant-start type lamps.

Another improvement in fluorescent lamps has been the development of the high output rapid-start lamp. This is an eight-foot lamp which produces about 45 per cent more light than the eight-foot slimline lamp. It does this at the same efficiency which means lower cost of light to the user.

It should be pointed out that as lighting levels increased beyond 50 and 100 footcandles, increases in employee complaints were noted. A look at the old type of lighting fixture gives a clue to the reason. Poor lamp shielding was one cause for distress. High brightness contrast due to the fact that there is no upward light from these fixtures was another disturbing factor. Another reason behind the complaints is that the exterior of the fixture is painted a dark color. The modern industrial lighting fixture, on the other hand, eliminates most of the problems.

The modern fixture has an opening in the top which helps to balance the brightness of the overhead zone. In addition, the opening allows the lamp to operate cooler, thus improving the lamp's efficiency. Maintenance characteristics are also improved since the opening in the top allows dirt, dust and lint to pass through the reflector rather than collect on top of it. Light which was previously trapped between the lamp and the reflector can now get out of the unit, which improves the fixture's efficiency.

The outside of the modern lighting fixture is finished in white. This condition helps balance the brightness between the inside and the outside of the reflector. Another feature of the new fixture is improved lamp shielding. Maximum comfort of new lighting systems is due not only to these fixture improvements but also lighter room finishes.

There are many areas of the textile industry which require specialized lighting techniques for supplementary and inspection lighting. Among the more common types is the perching operation which is a very demanding visual task requiring approximately 300 to 400 footcandles on the face of the cloth. Since the seeing is done mostly on the vertical surface, fluorescent lighting units are often mounted at an angle. Good color rendition is usually needed. Therefore the use of the deluxe cool white fluorescent lamp would have merit in this application.

Cotton classing is another operation which requires very exact seeing and proper color of light source. Cotton classers are generally trained for "north sky" color of light. Since grading goes on at different times of the day and different months of the year, artificial reproduction of this color is desirable. The proper color light is obtained by a combination of one 100-watt incandescent, one 40-watt blue and three 40-watt daylight fluorescent lamps in this ratio.

The stroboscopic type of light has been extremely useful to textile operations. Utilization of flashtubes in a stroboscopic unit can visually stop a repetitive type operation such as cloth moving over an inspection table, shuttles boxing in a loom and travelers moving around the spinning ring.

Maintenance is an aspect of lighting which is a particular problem to the textile industry. Increased interest in maintenance is caused by increased labor costs and complexity of modern lighting systems. Presence of considerable amounts of lint is another problem which must be faced. One technique which can reduce the labor involved in replacing lamps is called "group relamping." This system is simply an application of mass production principles to the problem. All the lamps in a given area are replaced after a particular number of operating hours. It is simple to calculate the economics of group relamping since time and labor of lamp replacement are greatly reduced.

Another important facet of maintenance is the cleaning operation. A properly designed wash tank is a necessary prerequisite to a quick and efficient cleaning program. An easy method for washing the fixture and ample area for allowing the fixture to drip dry are imperative for economical operation of cleaning.

It is obvious that lack of proper maintenance can change a good lighting system to a poor one. Not only will light quantity decrease but also light quality can be seriously affected. As a result, investment dollars will be wasted and production will be adversely affected.

The increasing number of high quality industrial lighting installations point out the fact that good lighting pays real dividends. With improvements constantly coming along, it is expected that these dividends will become larger and larger.

1957 Materials Handling Show Sets Record

With 18,600 registrants from 14 countries, the seventh National Materials Handling Exposition held in Philadelphia early in May proved to be one of the most successful in the ten-year history of the show. The three-day conference, with more than 900 registrants, set an all-time high for attendance at any technical session on materials handling subjects. After hearing exhibitors' reports on sales interest after the first four days, Clapp & Poliak Inc. announced that the next show will be held in 1958 at the Public Auditorium, Cleveland, Ohio, June 9-12 inclusive.

Former Maid Of Cotton Named Mrs. America

From Maid of Cotton to Mrs. America—that's the story behind the story of Mrs. Linwood Findley of Arlington, Va., recently named the nation's number one homemaker. Mrs. Findley, the former Linwood Lelane Gisclard of Donaldsonville, La., was chosen Maid of Cotton in 1944. As a result, she met her husband, Lt. Col. Harry Findley, who is stationed at Fort McNair Industrial College.

In her role as King Cotton's fashion and good will envoy, Linwood spent five months traveling 20,000 miles throughout the United States. One of the tour stops was Greenville, S. C. There she met Captain Findley of Pickens, S. C., whom she married in an all-cotton wedding at the conclusion of the tour. The couple lived at Cambridge, Mass., while he received his master's degree at Harvard. Linwood is a graduate of Louisiana State University, where she majored in home economics and nutrition.

Today Mrs. Findley is the mother of four children. She represented the District of Columbia in the 1957 Mrs. America contest at Ft. Lauderdale, Fla. The week-long competition included various phases of homemaking, cooking and housekeeping. As America's number one homemaker, Mrs. Findley received a new 1957 automobile. She and her family will also enjoy a two-week vacation at the Florida hotel which was contest headquarters.

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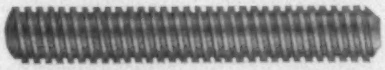

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LET'S GET THE FACTS STRAIGHT ABOUT MODERN RAYON

Many of the newer synthetic fibers which rocketed to fame in a flurry of claims, a few years ago, have recently suffered a good deal of debunking in trade and consumer circles.

This is hurtful to all of us in the apparel and home furnishings fields. It throws a smoke screen of doubt over the technical improvements and consumer benefits of *every* fiber—including rayon, the world's oldest, most used and *most improved* man-made fiber.

1957 Avisco rayon is not the rayon we all knew in 1945, in 1950—even in 1955. Intensified laboratory research has greatly improved it both in *structure* and in *use*.

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By itself, rayon can be silky, woolly, cottony or linen-like. In blends, it contributes its unique ability to take and hold gorgeous colors, absorb perspiration, and cut and drape and shape and stitch without seam slippage.

Improper *use* of rayon is swiftly disappearing. Remarkable new finishes, applied properly, add greatly to its superb washability, colorfastness, luster and comfort. The Avisco Integrity Program sets the standards for proper processing to meet end use requirements, and makes it worthwhile for everyone in the trade to observe these standards.

Many important cutters are adding the Avisco® Integrity Tag to apparel and home furnishings made from qualified fabrics. Many retailers find that this added assurance of quality rayon sells more goods and *keeps* them sold.

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Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

Edward D. Carman

Edward D. Carman has joined the instrument sales staff of Universal Winding Co., Providence, R.I. Mr. Carman will cover the South Carolina and Georgia territories for Universal, working out of the firm's Charlotte, N. C., office. He has had approximately ten years mill experience, including card room supervision, quality and cost control and general mill operation.

Frank K. Jones Jr. has been named assistant plant manager of Cheraw (S. C.) Cotton Mills Inc., succeeding F. E. Barron who has accepted a position with Fieldcrest Mills Inc., at Fieldale, Va.

Carl R. Hicks has been named superintendent of Howell Mfg. Co., Cherryville, N. C., to succeed L. W. McGinnas who has retired.

D. R. LaFar Jr., president of the LaFar chain of mills, has been awarded the Boy Scout Silver Antelope Award for outstanding service to boyhood in North and South Carolina, Georgia and Florida.

R. M. Hicklin has been named superintendent of manufacturing at the Eagle & Phenix Division of Reeves Bros. Inc. at Columbus,, Ga. Mr. Hicklin succeeds Strother E. (Doc) Murdoch, who has joined Burlington Industries as manufacturing manager of the Burlington cotton plants in the Gastonia, N. C., area. . . . Also promoted at the Eagle & Phenix Division at Columbus were Leon Tingler, new assistant superintendent of dyeing and finishing, and Piper M. Osborne, special assistant on the supervisory staff. Mr. Tingler was formerly with Kerr Bleaching & Finishing Works Inc., Concord, N. C. Mr. Osborne was previously associated with United Merchants & Manufacturers at Old Fort, N. C.

Julius E. Chapman, former vice-president and treasurer of Alabama Mills Inc., has been named assistant to Fred Phillips, president of Buck Creek Cotton Mills, Siluria, Ala.

Alfred G. New, manager of Judson Mills, Greenville, S. C., has been elected president of the Greenville chapter of the Society for the Advancement of Management. Gordon Williams, also of Judson Mills, was named vice-president, and Gaston Jennings, J. P. Stevens & Co., treasurer.

Orin W. Riley of Bloomsburg, Pa., has been named superintendent of Shelby (N. C.) Cotton Mills, succeeding Guy W. Byrd. Mr. Byrd resigned to accept a position at the Steele Plant of Burlington Mills at Rockingham, N. C.

John M. Caughman, superintendent of the Spartan Plant of Spartan Mills, Spartanburg, S. C., has been re-elected a director of Newberry College at Newberry, S. C.

Henry W. Swift, president of Swift Spinning Mills Inc., Columbus, Ga., is recuperating at home after surgery recently at Massachussets Memorial Hospital in Boston, Mass.

Sam G. Riley Jr., general manager of Pilot Mills Co., Raleigh, N. C., has been elected a director of the company. Mr. Riley has been with the firm more than 20 years.

Strother E. (Doc) Murdoch, formerly superintendent of manufacturing at the Eagle & Phenix Division of Reeves Bros. Inc., Columbus, Ga., has been named manufacturing manager of the cotton plants in the Gastonia, N. C., area for Burlington Mills.

M. A. Kirkland, assistant production manager of the textile division of United States Rubber Co., Winnsboro, S. C., retired May 1 after 37 years service with the company. Mr. Kirkland joined the textile firm of Lockwood Green & Co. in Camden, S. C., in 1919. He was transferred to Winnsboro in 1920; served at the company's Hogansville, Ga., plant from 1933 to 1940; returned to Winnsboro as production superintendent in 1940; was made plant manager in 1946; and was named assistant production manager of the textile division in 1956.

Frank C. Mawby, former president of Bates Mfg. Co., Lewiston, Me., has been elected a vice-president of Bigelow-Sanford Carpet Co. Inc. In his new post he will head the company's Hartford Rayon Division which manufactures carpet-rayon staple fibers for the carpet industry and its commercial spinners. . . . Ralph A. Rhodes, general manager of the company's Georgia Rug Mill, Summerville, Ga., has been elected a vice-president of the company with the assignment of heading its Sanford Division. Mr. Rhodes established Georgia Rug Mill in 1946. He was named general manager in 1950 when Bigelow-Sanford purchased the plant. Under his direction, the plant has been enlarged by a series of expansions to a production capacity about ten times greater than the original mill.

W. J. Fulkerson has resigned as superintendent of Neisler Mills, Kings Mountain, N. C., to accept a position with the finishing division of Burlington Industries at Greensboro, N. C. Succeeding Mr. Fulkerson, who had been with Neisler 22 years, is A. T. Wilbanks.

Allen T. Adams, formerly plant designer at J. P. Stevens & Co., Greenville, S. C., has been named plant engineer of the Elm City Plant of Callaway Mills, Co., LaGrange, Ga. . . . Vance Sanders, formerly superintendent of designing and development at the Calumet Plant of Callaway, has been named plant engineer of the Calumet Plant. A graduate of Texas Tech, Mr. Sanders has been with the company since 1949. Prior to being named supervisor of designing and development, he served as overseer of finishing at Calumet.

Arthur L. Jackson has been named assistant manager of the towel mill of Fieldcrest Mills Inc., Fieldale, Va. Mr. Jackson joined Fieldcrest in 1948 following graduation from North Carolina State College. He was named assistant superintendent of the company's Synthetic Fabrics Mill in 1952, and was promoted to superintendent

BOSS OF THE YEAR—Hans Eyl Runge, executive vice-president of Abney Mills, Greenville, S. C., was recently named "Boss of the Year" in Greenville by the Greenville Chapter of the National Secretaries Association. A silver loving cup was presented to Mr. Runge at a breakfast meeting in his honor by Miss Sara Stewart, president of the Greenville Chapter of the N.S.A. Mr. Runge has been with Abney for some 26 years, and has made his headquarters in Greenville since 1946.

in 1953. Fieldcrest has announced that production is being discontinued in the synthetic fabrics mill because the operation has been unprofitable for the past five years. . . . Frank E. Barron has been named assistant superintendent of the Fieldcrest bedspread mill at Leaksville, N. C. Mr. Barron recently resigned as superintendent of Cheraw (S. C.) Cotton Mills to rejoin Fieldcrest where he formerly served as a member of the engineering department. . . . Edwin Byrd has been named assistant foreman of the spinning department at the towel mill on the third shift. Mr. Byrd has been with the company since 1942 when he joined the towel mill as a battery filler. . . . Clay Barrow, formerly assistant foreman, second shift, in the weave room of the blanket mill, has been promoted to foreman of the blanket inspecting department. Mr. Barrow has been with Fieldcrest since 1939.

Dr. Hugh M. Brown

Dr. Hugh M. Brown, dean of the School of Textiles at Clemson College, has announced that he will retire June 30. Dr. Brown has served as head of the textile school since 1945. Prior to that he was head of the Clemson physics department. Following retirement he plans to devote more time to textile and other types of research in which he is interested.

William Zwicker has joined Werner Textile Consultants, New York City, as a member of the firm's staff of office management analysts. Mr. Zwicker was formerly assistant to the vice-president at S. Augstein and Co., College Point, Long Island. With a background in accounting and business administration, he has devoted the past 15 years to system and procedures work in all types of textile operations, punch card accounting and integrated data processing. He will make his headquarters at Werner's planning and research development department in Larchmont, N. Y.

F. C. Ames, formerly with the Wiesner-Rapp Co., Buffalo, N. Y., has been appointed sales engineer with the United States Supply Co. Inc., Providence, R. I. The company, which maintains a Southern district office in Rockingham, N. C., offers a complete line of wet finishing and dyeing machinery. Mr. Ames will make his headquarters in the firm's Providence offices.

Joe T. Bohannon Jr., manager of the Chattanooga, Tenn., branch office of American Aniline Products, a unit of Koppers Co. Inc., has been transferred to the company's sales department staff headquarters in Pittsburgh, Pa. Succeeding him at Chattanooga is Karl C. Ruppenthal, assistant to the Southern district manager at Charlotte, N. C. Other changes in the firm's Southern sales staff includes the transfer of Edward S. Johnson from the Chattanooga sales service laboratory to the position of sales representative covering accounts in Tennessee and northern Georgia. Clarence W. Angline will be transferred from the unit's office in Columbus, Ga., to the sales service staff at Chattanooga, and William A. Geiler will join the Georgia sales staff this Summer upon completion of a specialized training course at the unit's main headquarters.

Boyce C. Bond has been appointed resident manager of the Philadelphia, Pa., sales territory of Metro-Atlantic Inc., Centredale, R. I. Mr. Bond, a graduate of Georgia Tech, is the inventor of the Bond dyeing machine now being manufactured by The Textile Machine Shops in Spartanburg, S. C. He formerly was director of the British Dyestuff Corp. Laboratories, now the Imperial Chemical Industries, in Boston, Mass. He has also spent 19 years with General Dyestuff Corp. in sales and service work.

John W. Bagwill and Percy C. Gregory Jr. have been named vice-presidents of Cone Mills Corp., Greensboro, N. C., and E. Edward Connelly has been elected controller. Mr. Bagwill joined the company last January as director of industrial and public relations. Mr. Gregory has been assistant vice-president of the company and general manager of Union Bleachery, Greenville, S. C., for a number of years. The new controller, Mr. Connelly, has been assistant controller since 1950. Officers reelected were Benjamin Cone, chairman of the board; Ceasar Cone, president; Lewis M. Heflin, vice-president; Clarence N. Cone, vice-president; Sydney M. Cone Jr., vice-president; Marion W. Heiss, vice-president; Henry G. Nichols, vice-president; Earle R. Stall, vice-president; James Webb, vice-president; Harold W. Smith, treasurer; Lewis S. Morris, secretary and assistant treasurer; Marshall Gardner, assistant vice-president; Edwin M. Holt, assistant vice-president; William H. White, assistant vice-president; John E. Field, assistant secretary; and J. W. Walters, assistant secretary.

John J. Lowe has been named manufacturing manager of the Burlington Narrow Fabrics Co., South Hill, Va., to succeed Stiles S. Dixon Jr. Mr. Dixon has been named division controller of Mooresville (N. C.) Mills, a member company of Burlington Industries. Mr. Lowe has been with Century Ribbon Mills in New York since 1946. . . . Allen Mebane has joined Burlington Throwing Co. as sales representative in western North Carolina and Virginia. Mr. Mebane was formerly with the yarn brokerage firm of Holbrook and Mebane in High Point, N. C. Prior to that he was with American & Efird Mills, Mt. Holly, N. C., and Sale Knitting Co., Martinsville, Va. He is a native of Greensboro, N. C., and attended Philadelphia Textile Institute. He will make his headquarters at Burlington Throwing Co.'s main offices at High Point. . . . Robert Pittman, formerly sales representative for both Burlington Yarn Sales Co. and Burlington Throwing Co., has been transferred from Greensboro to sales offices in New York City. . . . Bruce Hodges, formerly yarn procurement representative for Burlington Industries, has been named to succeed Mr. Pittman. In his new post, he will cover eastern North Carolina, South Carolina and parts of Virginia with headquarters in Greensboro. Mr. Pittman has been with Burlington Industries since 1945. Mr. Hodges also joined the company in 1945 and has served as yarn procurement representative since 1955.

John E. O'Brien can probably claim one of the longest uninterrupted records of employment at one location in the textile industry. He joined the American Woolen Co. on May 1, 1907, at Winooski, Vt., and continued there until February 1955. During that period he worked up through all phases of mill administration. He was for a short time transferred to the Baltic Plant, Enfield, N. H., as plant manager, and then went to Amerotron's new woolen mill at Barnwell, S. C., in a consulting capacity. On May 1, he celebrated his 50th year of service as well as his 45th wedding anniversary. A committee of his oldest friends in the company consisting of Messrs. Earle Pack, Dandeneau, Maturo and McNamara made the trip to Winooski to represent the company and to present Mr. & Mrs. O'Brien with a token of the esteem and affection with which they are regarded. Mr. O'Brien, who was 65 years old in April, will retire officially on June 1.

Standard-Coosa-Thatcher Co., of Chattanooga, Tenn., has announced the promotion of three of its executives following a meeting of the board of directors. James Alverson and Charles Eagar have been named assistant secretaries of the company and G. Ellis Butler has been made an assistant treasurer. Mr. Alverson, manager of S-C-T's thread order department, has been with the firm since 1933, and has served in several capacities. Mr. Eagar, assistant production manager in charge of the yarn order department, has been associated with the firm since 1946. Mr. Butler, head of the accounting department, joined S-C-T in 1941 after graduation from the University of Chattanooga.

Herman D. Ruhm Jr.

Herman D. Ruhm Jr., who resigned May 1 as president of Burlington Industries Inc., has been elected president of Wellington Sears Co. Mr. Ruhm succeeds T. Scott Avary who has been elected vice-chairman of the board of the company. Mr. Ruhm had been with Burlington since 1955. Prior to that he was president of Bates Mfg. Co. Mr. Avary, a vice-president and director of West Point (Ga.) Mfg. Co., Wellington Sears' parent organization, has been president of Wellington Sears since October 1955. He will continue as a director of Wellington Sears; Columbus (Ga.) Mfg. Co.; Dixie Mills, LaGrange, Ga.; and Equinox Mills, Anderson, S. C. He will make his headquarters in New York City.

Maurice W. Richardson has joined C. A. Litzler Co. Inc., as sales engineer for textile process equipment manufactured by the

Cleveland, Ohio, firm. A graduate of Lowell Textile Institute, Mr. Richardson was previously connected with Cleveland Process Inc., and B. F. Goodrich's aeronautical division in design and development capacities, as well as with Eastern textile processors and equipment builders. His broad experience in fibers, rubber and heating particularly qualify him for application engineering of the continuous web and strand process equipment in which the Litzler firm specializes.

Fred L. Johnson, president of Belding Heminway Co. Inc., has been appointed chairman of the board of directors of the company to succeed Raymond C. Kramer who died suddenly from a heart ailment in January. Mr. Johnson will also continue to serve as president, a position he has held since 1949. Having joined the company 37 years ago, Mr. Johnson has been a salesman, branch office manager, general sales manager, vice-president, and has been a director since 1938.

William J. McFadden, production manager of The Fletcher Works, Philadelphia, Pa., has been named to the newly-created post of sales service manager of the centrifugal division. Mr. McFadden has been with the firm's production staff since 1933. In his new post, he will direct the firm's service organization throughout the country to give customers 24-hour service.

Louis D. Scott has been named production projects manager of the Chemstrand Corp.'s Acrilan plant organization, Decatur, Ala. Mr. Scott will head a group responsible for the Acrilan plant efforts in connection with local expansion, liaison with overseas activities, and for the plant industrial work. He has been Acrilan plant manufacturing superintendent since September 1955. His previous Chemstrand assignments were nylon liaison and nylon process development work, and he started his Chemstrand career in 1952 in the technical department of the firm's Pensacola, Fla., nylon plant.

Joseph S. Fechteler has been elected a vice-president of C.I.T. Financial Corp. Mr. Fechteler joined C.I.T. in 1934 as an attorney. He was graduated from Fordham University in 1927 and from Harvard Law School in 1930. A native of New York City, he lives in Larchmont, N. Y.

Frank Supeno has been appointed a general sales representative at Stein Hall & Co. Inc.'s Charlotte, N. C., branch. Mr. Supeno who joined Stein, Hall in 1956, was with the firm's adhesive department in the New York office prior to his new assignment. Before joining the company he was a salesman with General Mills for two years. He is a graduate of Pennsylvania State University.

Fritz H. Sarratt Jr., has been appointed quality control chemist for the Southern plant and laboratory group of the Warwick Chemical Division of Sun Chemical Corp. Mr. Sarratt will be responsible for quality control of all products manufactured at Warwick's Rock Hill, S. C., plant. Warwick Chemical is a leading manufacturer of Prym textile resins, Norane water repellents and Suntone pigment printing colors. Mr. Sarratt will also assist in the expanded technical service laboratory at Rock Hill. He is a 1943 graduate of Clemson College, and a resident of Rock Hill. Before joining Sun Chemical Corp., he was employed at American Enka Corp., Celanese Corp. of America, and Arnold, Hoffman & Co.

Richard C. Horton, formerly manager of industrial textile development of the Owens-Corning Fiberglas Corp., has joined the fiber glass department of J. P. Stevens & Co. Inc. Mr. Horton's services will have to do with research and development work on both industrial and decorative glass fabrics. In addition he will be closely associated with the fiber glass textile and plastics laboratories at the Stevens glass weaving and finishing plant at Slater, S. C., and with fiber glass testing at the company's central laboratories in New York. Mr. Horton was in charge of industrial textile development at the Owens-Corning plant in Ashton, R. I., for seven years prior to joining Stevens.

Maurice H. Schwartz has been elected a vice-president of James Talcott Inc., financing and factoring organization. Mr. Schwartz was a founder and general partner of Prudential Acceptance Inc. prior to joining Talcott as resident manager in Detroit in May 1955.

T. R. Leebrick and James L. Painter have joined the Uster Corp. testing equipment department as service engineers for the Mideastern and Northern areas serviced by the company. Both will be headquartered at the main office in Charlotte, N. C.

Sam Littlejohn has been appointed superintendent of dyeing and finishing at the Mount Holly, N. C., plant of American & Efird Mills Inc. Mr. Littlejohn graduated from Clemson College with a degree in chemistry and later obtained his M. S. degree from North Carolina State College. For the past ten years he has been with Munsingwear Inc. at their Minneapolis, Minn., plant. He held the position of superintendent of fabric knitting, dyeing and finishing.

Laurence T. Gerrity has been appointed assistant general sales manager and R. P. Wilson has been made sales development manager of the textile division, Celanese Corp. of America. Mr. Gerrity joined Celanese in 1945. He has worked successively in the textile production planning department and on the New York district textile sales staff. He was made New York district textile sales manager in 1955. In 1956, he was named textile sales development manager and transferred to textile division headquarters in Charlotte, N. C. Mr. Wilson was special assistant to the general sales manager of the textile division prior to his new assignment. He joined Celanese in 1954 as a salesman in the Southern district textile sales office in Charlotte.

Donald B. Tansill, president of M. Lowenstein & Sons Inc., has been elected president of Wamsutta Mills, New Bedford, Mass. Before joining Lowenstein in 1951, Mr. Tansill was vice-president of

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Burlington Mills Corp. Prior to that he was with Pepperell Mfg. Co.

John F. Synan and Walter W. Northgraves have been appointed to the market development department of the industrial chemicals division, Olin Mathieson Chemical Corp., Baltimore, Md., where they will specialize in products for the textile industry. Mr. Synan was formerly in the company's general research organization and has spent a number of years in the development of bleaching agents. Prior to joining Olin Mathieson in 1939 he was a chemist for the Mt. Hope Finishing Co., North Dighton, Mass. He is a member of the American Association of Textile Chemists & Colorists and of the Chemists Club of New York. Mr. Northgraves also joined Olin Mathieson in 1939. He has formerly been responsible for the company's technical service to the pulp and paper industry.

Joseph P. Clancy has been appointed Eastern district sales manager of the organic chemical sales department of Emery Industries Inc. Mr. Clancy will make his headquarters at Emery's Philadelphia, Pa., office where he succeeds J. W. Ritz, recently named assistant sales manager. Mr. Clancy joined Emery in 1949, serving in the Southern sales territory. In 1935 he was appointed chemical sales representative in New England. A graduate of Clemson College, he is a member of the American Assocation of Textile Chemists & Colorists.

Edward B. Moebus and Samuel B. Roberts have been named vice-presidents of Lockwood Greene Engineers Inc., engineers and architects. Both will make their headquarters in the firm's New York City offices.

E. W. Scott, former sales service representative for specialty coatings in the chemical division of the Goodyear Tire & Ruber Co., has been named manager of the newly-created sales development unit for the coatings department. The unit has been formed to expedite the introduction of new coating materials for the textile industry.

Albert R. Jenny has been appointed to the newly-created position of general sales manager of Jersey Chemical Co., Haledon, N. J., manufacturer of textile chemicals. Formerly affiliated with major chemical producers in the U. S. and Canada, Mr. Jenny has had more than 25 years experience in the chemical field, both in sales management and in actual field sales of chemicals to a wide variety of industries.

E. Putnam Head has been named Southeastern regional manager for Mason-Neilan, a division of the Worthington Corp. In his new post Mr. Head will supervise sales activities in the company's Atlanta, Birmingham, Charlotte and Jacksonville offices. Mason-Neilan is a leading manufacturer of control valves, instruments, regulators, level transmitters, automatic tank selectors and specialized control and process systems.

Clarence C. Smith has been appointed director of engineering of Tranter Mfg. Inc., Lansing, Mich. Mr. Smith, who holds a degree in engineering from Tri-State College of Engineering, Angola, Ind., formerly served as a design and project engineer for the Flint and Walling Mfg. Co. Inc., Kendallville, Ind., and the Duriron Co., Dayton, Ohio.

Sumner H. Williams has been named co-ordinator of sales programming for the dyestuff and chemical division of General Aniline & Film Corp. Mr. Williams will act as chairman of the new sales programming committee which will review and develop recommendations for the establishment of co-ordinated programs in product sales, commercial product development, marketing, advertising and related areas of activities. He will also serve as technical sales consultant in developing sales and customer relations among major users of dyes, pigments, surfactants and chemicals. Mr. Williams, who joined the company in 1928, has been vice-president since 1952. He has served as general sales manager and assistant general manager. He is noted in the dyestuff and textile industry as the inventor of the Williams Unit, a continuous operation piece goods dyeing machine. He is also responsible for a number of other technical advances including the hot oil bath process, a revolutionary method of dyeing cotton and rayon fabrics.

OBITUARIES

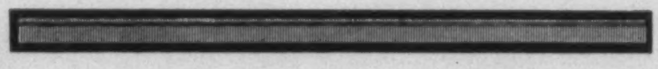
James E. Bolderson, 77, former division superintendent for Pacific Mills, Lyman, S. C., died last month in New Bedford, Mass. Mr. Bolderson had been retired the last 17 years. Surviving are two sons.

Martin L. Cannon Jr., 46, former textile executive and grandson of the late James W. Cannon, founder of Cannon Mills, Kannapolis, N. C., died recently of a heart attack. Mr. Cannon from 1938 to 1946 was vice-president of Carolina Textile Corp. at Dillon, S. C. In 1946 he became president of the Martin L. Cannon Family Foundation, a charitable institution bearing the name of Mr. Cannon's father who died in 1952. Survivors include his mother, his widow and a daughter.

Timothy E. Connor, 90, retired vice-president and director of Foster Machine Co., Westfield, Mass., died early this month. Mr. Connor had been retired since 1945. He is survived by two sons and a sister. One son—Edward C. Connor—is a vice-president and sales manager of Foster.

Nelson N. Harte, general superintendent of Morgan Cotton Mills, Laurinburg, N. C., died April 26 in Laurinburg. A graduate of North Carolina State College, Mr. Harte had been active in the textile industry 31 years. Prior to joining Morgan, he had been associated with the old Merrimac Mfg. Co., Huntsville, Ala., and Barnes Textile Associates, Spartanburg, S. C. Surviving are his widow, a daughter and a son.

Max N. Planer, secretary and treasurer of Piedmont Mills, Gastonia, N. C., died recently in Charlotte, N. C., following minor surgery. Mr. Planer was also secretary and treasurer of Piedmont Fabrics Inc. of Gastonia, producer of knitwear. He is survived by his widow, a son, a daughter and a brother.



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Harry A. Severson, 79, chairman of the board of Barber-Colman Co., Rockford, Ill., died April 18 in Rockford. Mr. Severson had been with the company since 1901, at which time it was known as Barber & Colman. He was named president in 1942 following the death of Howard Colman, inventor of many of the firm's machines. Surviving are his widow, a daughter and a son.

Dr. W. J. D. van Dobbenburgh, 55, rayon operation manager of the American Enka Corp., Enka, N. C., died April 28 in Asheville, N. C., after a short illness. Dr. Van Dobbenburgh was considered one of the top technical men in the rayon industry in the world. A native of Holland, he went to work for Enka in Holland in 1928. He transferred to this country and the plant at Enka in 1935.

Francis W. White, 63, former president of the American Woolen Co., died April 28 at his home on Manters Point, Mass., following an illness of six months. Mr. White had been associated with the textile industry since 1910. He was named president of American Woolen in 1950, and served in that post until May 1954. He is survived by his widow, two sons and three daughters.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

MONROE, N. C.—Puritan Looms Inc. of Philadelphia, Pa., will move its spinning and weaving operations to this city. The finishing and combing departments and the company's offices will remain in Philadelphia. The firm produces interlinings.

HICKORY, N. C.—United Merchants and Manufacturers Inc. of New York City has sold its Brookford Mills' 18,500-square-foot warehouse to a local transfer and storage company. This marks the first sale of property since the company announced that it would close its Brookford plant several months ago.

SILVERTOWN, GA.—The B. F. Goodrich Co.'s Martha Mills has received the first-place safety trophy awarded by the Cotton Manufacturers Association of Georgia, for the second consecutive year. Martha Mills' record of completing 3,923,546 man-hours without a chargeable accident was the best out of 114 competing mills.

COLUMBUS, GA.—Jordan Mills has completed construction of a new weaving deperament at its plant here. The addition increases the plant's loom capacity by 50 per cent and provides 22,000 square feet of floor space. It has air conditioning and hardwood floors over an asphalt surface. This section of the plant produces materials such as fabrics used in auto upholstery.

CHARLOTTE, N. C.—Spatex Corp., has appointed Frank G. Binswanger Inc. of Philadelphia, Pa., as its agent in the sale of its building. The company previously had employed about 275 people in the three-story, brick construction, 140,000-square-foot structure.

LANDO, S. C.—Manetta Mills is building a three-story warehouse containing 18,000 square feet of floor space here. The warehouse is the second constructed by the company in the past three years.

ATLANTA, GA.—Fulton Bag & Cotton Mills has announced that it has sold 196 homes in the mill's village here for $775,000. The average price was $3,500 per unit. Approximately 90 per cent of the houses were sold to company employees.

ENTERPRISE, ALA. — Bama Cotton Mills of this city has been incorporated by D. H. Morris III, W. H. Morris, Joel E. Johnson, Thelma W. Johnson and Jim Johnson Jr. all of Geneva, Ala. Capitalization is $500,000 with 10,000 no-par value shares.

BOSTON, MASS.—The Kendall Co. has reported that its net earnings on sales of $24,674,000 for the 12 weeks ended March

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23, 1957 were $867,000. Net earnings per common share for the 12-week period amounted to 82 cents. The similar period last year netted $1.15 per common share. The company said that sales for the period compared favorably with last year but the loss in profits were due to decreased shipments of fabrics and shorter profit margins because of depressed conditions in the market.

MOORESVILLE, N. C.—Burlington Industries' Cascade plant has been announced as the winner of a national award for employee communications programs. The award competition, sponsored by the Chamber of Commerce of the U. S., was based on methods used by business firms to inform their employees on business operations and economic matters. Cascade conducts employee meetings, uses bulletin boards, visual and written material and other techniques of sharing information with employees.

PONCE, PUERTO RICO — Indian Head Mills Inc. has announced the formation of a new Puerto Rican subsidiary company which will operate the cotton mill located here under an agreement with the Puerto Rico Industrial Development Co. The new company, Indian Head Puerto Rico, will purchase inventories in the mill from Textron Puerto Rico which formerly operated the plant.

CHARLOTTE, N. C.—J. P. Stevens & Co. will move another division of the accounting offices to this city about mid-Summer. The latest move will practically complete the shift of all the company's accounting functions out of New York. The new division will occupy a building at 426 W. 4th St. The company's present Charlotte offices are located at 301 W. 4th St.

SHELBY, N. C.—National Haircloth Co. of Philadelphia, Pa., will move all of its interlining looms to its new plant here by late 1957. The owners of the firm and Sackville Mills, Wallingford, Pa., have acquired a 70,000-square-foot plant formerly occupied by Consolidated Textile Co. The company will continue to operate the haircloth looms in Philadelphia and also carry on some operations in Sackville.

BETHUNE, S. C.—The Kendall Co. opened its new $8,000,000 finishing plant here in the latter part of April. The single-story plant covers more than seven acres. It has modern equipment and layout and bleaches and finishes "Curity" diapers, "Kendall" dish towels and a broad variety of special industrial and interlining fabrics sold under the company's trade marks. The fabrics for these purposes are manufactured by Kendall's cotton mills.

FLORENCE, ALA.—Florence Cotton Mills has added a second shift at its plant where operations were disrupted in early April by a labor dispute. The mill resumed one-shift operations in mid-April with approximately 50 employees of the former 180 employee organization. Additional workers returning to the job have made possible the addition of the second shift. Management of the company said that approximately 70 per cent of the employees on the job were working at the time of the shutdown.

PENDELTON, S. C.—Blue Ridge Yarn Mill has ceased operations and its machinery has been sold to Comer Machinery Co. of Atlanta, Ga., and Charlotte, N. C.

DOUGLASVILLE, GA. — The Douglasville (Ga.) Division, Glendale (S. C.) Mills Inc., will be liquidated in the near future. The mill will continue operations until the end of May and after that the stock will be run out. During those four or five weeks, every effort will be made to sell the mill as a going operation. If this cannot be done, however, the plant will be offered on a piece-meal basis. The mill has approximately 33,000 spindles of spinning, 83 cards and 700 looms.

ALBERTVILLE, ALA.—Kendall Mills Co. has announced plans to spend at least $1,500,000 this year and next in modernizing its mills here. All present opening and cleaning equipment will be replaced. Larger package roving frames will be installed. New spinning creels, drafting assemblies, traveling cleaners and vacuum waste collectors will be put in the spinning room. The 620 looms will be rearranged and an air change system will be installed in the weaving and cloth departments.

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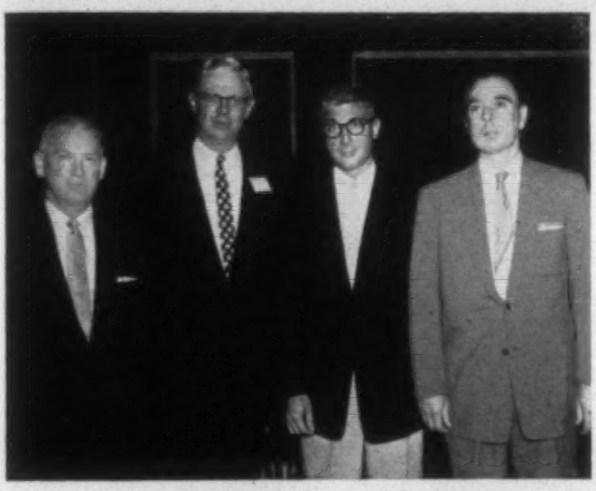
S.T.A. Convention Program Announced

The Southern Textile Association will hold its annual convention Thursday, Friday and Saturday, June 20-22, at the Ocean Forest Hotel in Myrtle Beach, S. C. Highlighting this year's program will be addresses by W. E. Reid, president of Riegel Textile Corp.; the Honorable William Jennings Bryan Dorn, Congressman from South Carolina's Third District; and Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute.



Vincent, Pittendreigh, Chapman, Pennington

Four prominent figures in next month's S.T.A. convention at Myrtle Beach, S. C., will be the association's officers for the current year. They include the retiring chairman of the board of governors, James A. Chapman Jr.; W. M. Pittendreigh, president; Horace Pennington, first vice-president; and Walter D. Vincent, second vice-president. Mr. Pittendreigh is expected to succeed Mr. Chapman, with Mr. Pennington ascending to the presidency and Mr. Vincent assuming the first vice-presidency. A new second vice-president will be elected to succeed Mr. Vincent.

The convention officially opens Thursday noon, June 20, with the afternoon set aside for registration. A steak supper is scheduled for Thursday night. The first business session will be held Friday morning, beginning at 10 a.m. This session will be addressed by Mr. Reid and Congressman Dorn. Friday afternoon activities will include an 18-hole Callaway system golf tournament for the men at the Dunes Club, and a nine-hole tournament under the Callaway system for the ladies at the Pine Lakes Golf Course. A buffet supper is scheduled for Friday evening, to be followed by a floor show on the hotel's Marine Patio.

The closing business session Saturday morning, June 22 will feature Mr. Jackson's address, plus the customary remarks of the retiring president—W. M. Pittendreigh, Riegel Textile Corp., Ware Shoals, S. C. An election of officers will close the convention.

If precedent is followed, Mr. Pittendreigh will be named chairman of the association's board of governors to succeed James A. Chapman Jr. of Inman (S. C.) Mills. Succeeding Mr. Pittendreigh as president will be Horace Pennington of Cone Mills Corp., Greensboro, N. C., current first vice-president. Walter Vincent of Dan River Mills, Danville, Va., current second vice-president, is slated to succeed Mr. Pennington, with the convention electing a new second vice-president.

Other officers to be elected include four new members

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to the board of governors. Board members whose terms expire at the convention include Jesse A. Boyce, Erwin Mills Inc., Durham, N. C.; J. P. Carter, Spartan Mills, Startex, S. C.; W. B. Etters, Reeves Bros. Inc., Spartanburg, S. C.

C.M.A.G. Holds 57th Annual Convention

The 57th annual convention of the Cotton Manufacturers Association of Georgia, which was held May 1-4 in Nassau, Bahamas Islands, elected George H. Hightower, vice-president of Thomaston (Ga.) Mills, president for the coming year. Mr. Hightower succeeds Henry McD. Tichenor, president of Walton (Ga.) Cotton Mills Co., as president of the association.

The delegates also elected W. C. Vereen Jr., president of Moultrie (Ga.) Cotton Mills, as vice-president, and Louis L. Jones Jr., president of Canton (Ga.) Cotton Mills, as treasurer. The following officers were re-elected: T. M. Forbes, executive vice-president, Atlanta; Frank L. Carter, secretary, Atlanta; Paul P. Watkins, manager of the Georgia-Alabama Textile Traffic Association, an affiliated organizattion; and O. B. Moore Jr. of Atlanta was elected to the new office of assistant secretary.

New Directors

New directors named to serve three years are Levi J. Ball, secretary of Pepperton Cotton Mills, Jackson; James A. Byars, general manager of Reeves Brothers, Eagle and Phenix Division, Columbus; Carl L. Boggs, manager of Elberton (Ga.) Division, United Merchants and Manufacturers Inc.; Herschel Harris, president of Standard-Coosa-Thatcher Co., Rossville; Howard R. Hart of the Brighton Division, Burlington Mills Inc., Shannon; and H. A. Pickford, who is vice-president and general manager of Crompton-Highland Mills of Griffin.

Elected for two years to fill the unexpired term of the late P. L. Shaefer of Carrollton was A. J. Morse, vice-president of Coats and Clark Inc., Toccoa. John P. Baum, vice-president, J. P. Stevens & Co. of Milledgeville was elected to serve the one-year unexpired term of the new treasurer.

G. H. Hightower

The association's new president, George H. Hightower, is the third member of his family to hold the office. His father, the late W. Harrison Hightower, served in 1928-29, and his uncle, Julian T. Hightower, in 1942-43. Mr. Hightower is a 1937 graduate of Georgia Tech and served in the U. S. Navy for four and one-half years during World War II. He is a member of the Methodist Church, a Sunday School teacher, chairman of the building committee and has served the church in other posts. Mr. Hightower is a member of the Kiwanis Club, the Chamber of Commerce, the American Legion and the Thomaston Country Club. He has been a director of the association since 1952. He has also served the association as treasurer, vice-president and as chairman of various committees. He is also a past president of the Textile Education Foundation Inc.

Mr. Vereen, the new vice-president, was serving the association as treasurer at the time of his election. The association's new treasurer, Louis L. Jones, has been a director since 1955.

President's Address

In his address, the association's outgoing president, Mr. Tichenor, said, "The single event most significant to us as an industry was the agreement with Japan limiting imports of cotton cloth to the U. S. from the island kingdom to 235,000,000 yards annually for the next five years." He added that it was hardly an ideal solution but was far better than most had hoped for during most of the negotiations and "all of us should be very grateful to our leaders in A.C.M.I. for their untiring efforts in our behalf." Mr. Tichenor saluted the A.C.M.I. leaders saying, "Even after they seemed to be beaten, they kept fighting against indifference until they finally achieved a measure of victory."

"Another significant development was a substantial wage increase," Mr. Tichenor said, "granted by most of those in our industry. I personally think this was desirable and even necessary," he added. He said he was critical of a "dangerous habit" in regard to increasing wages without increasing the efficiency of the worker. He said, "Our hope of raising the pay of our workers without jeopardizing our financial structures, lies in more efficient work by our people."

Mr. Tichenor said it was his belief that all the association's members wanted to sell not only cloth but also confidence in the textile industry. He wanted to know if the best way to achieve these ends was "an attitude of defeatism or one of cheerful optimism?" He said that his guess was the latter and "I think we should begin to show more optimism and stop talking poor mouth."

"About 30 years ago a Dr. Coue, a Frenchman, came to this country and though we regard him as a faddist," Mr. Tichenor said, "in reality he effected some interesting cures by a simple prescription. He had his patients repeat over and over, many times a day, a little statement, *Day by day, in every way, I'm getting better and better*. Perhaps some of us in our industry need a dose of Coueism today." Mr. Tichenor said that the industry members could repeat those lines over and over and really be telling the truth because of the "brighter business future" which lies ahead.

Freight Rate Increase

Paul P. Watkins, traffic manager of the Georgia-Alabama Textile Traffic Association, told the convention that "very drastic general freight rate increases now being sought by the rail and motor carriers, proposed new rules and regulations in motor carrier tariffs and pending national legislation affects all surface transportation and the operation of private trucks are some of the most important problems facing producers and shippers of textile products." Mr. Watkins said that the railroads in the South are seeking another ten per cent general freight rate increase, thus adding to the spiral of higher distribution costs and contributing to further increasing inflation generally. The Eastern and Western railroads are seeking still further increases, totaling 22 per cent over rates existing in December 1956. The motor carriers have also published a general increase of five per cent in some territories after the Southern rail lines did so, Mr. Watkins pointed out. He said the motor carriers claimed that higher labor costs and additional fringe benefits make the rate boost necessary.

Lieutenant-Governor Vandiver

The cotton manufacturers were addressed by Lieut.-Gov. Ernest Vandiver of the state of Georgia. Mr. Vandiver pointed out the economic changes that have taken place in the South in the last 15 years have been amazing. "Anyone who predicted them," he said, "would have been considered at the time overly optimistic. Industrialization has made a new world from a predominantly agricultural area. Now manufacturing wages produce more than three times as much income as do the farms," he said.

In the body of his address the lieutenant-governor said, "The legislative objective for our state over the next 20 months to hold the line against increases in taxes and against assumption of any new spending program has my whole-hearted support. These few years ahead are a crucial time in the growth period of our state. . . . How we meet and solve our problems in the next decade will have profound effect for many years to come."

Safety Contest Winners

The Safety Contest Committee reported the winners of the 1956-1957 fiscal year safety contest. The first place winners are Group A (1 to 249 employees): The General Tire & Rubber Co., Eldora Mills Division, Barnesville; Group B (250 to 499 employees): Chicopee Mfg. Corp., Athens Division, Athens; Group C (500 to 749 employees): Callaway Mills Co., Unity Plant, LaGrange; Group D (750 to 999 employees): Dundee Mills Inc., Plant No. 1, Griffin; and Group E (1,000 or more employees): Martha Mills Division, B. F. Goodrich Co., Silvertown.

Jones Named Phi Psi 'Man Of The Year'

Halbert McNair Jones of Laurinburg, N. C., president and treasurer of Waverly Mills in Laurinburg and treasurer of Morgan-Jones Inc., New York City, is the 1957 "Man of the Year" of the North Carolina State College Chapter of Phi Psi, national textile honor society.

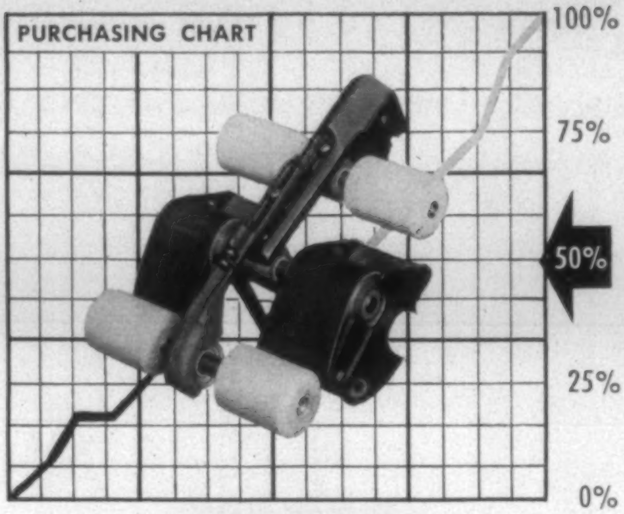
A widely-known church, civic and business leader, Mr. Jones formally received the award at a banquet given in his honor at the Reinlyn House in Raleigh, N. C., Tuesday, May 21. The award was presented by Donald Carey of Providence, R. I., president of Phi Psi and a student in the State College School of Textiles.

Mr. Jones, a graduate of the University of North Carolina and Harvard University, will be next year's president of the American Cotton Manufacturers Institute. He is currently serving as the institute's vice-president and is also vice-president of the North Carolina Textile Manufacturers Association.

A past president of the Carded Yarn Association, he has been associated with Waverly Mills since 1932 when he was named treasurer of the firm. He was elected president of the organization in 1936. He helped organize Scotland Mills in 1936. Mr. Jones was chosen to receive the Phi Psi award on the basis of his leadership and outstanding work on behalf of the textile industry and for his activities as a civic and church leader.

N.A.W.M. Holds Annual Meet

A campaign geared to alert congressmen, federal officials and textile trade groups of the dangers to national security resulting from the rapid contraction of the wool textile



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industry was launched at the 92nd annual convention of the National Association of Wool Manufacturers May 9 at the Waldorf Astoria Hotel in New York City.

The educational drive was based on a booklet called *Dangers Ahead—50 Per Cent Contraction in the Wool Textile Industry.* Edwin Wilkinson, N.A.W.M.'s executive vice-president, introduced the booklet at the morning session as a slide presentation. The booklet points up the 50 per cent loss in machinery since 1956 and the rapid rise of imports of wool products from countries with a low wage scale. The booklet emphasizes that although Congress recognized wool as an "essential and strategic" commodity in the Wool Act of 1954, the act will have little meaning "unless the U. S. has the machinery and skills to manufacture wool into essential wool products."

Among the major points covered in the literature were charts that depicted the over-all loss in machinery at 50 per cent, including a decline of 45 per cent in looms, 50 per cent in worsted spindles, 53 per cent in woolen spindles and 44 per cent in combs. A graph showed woven cloth production down 41 per cent and employment down 51 per cent.

An illustrated chart showed the "wage gap" on 16-ounce army serge, a rigidly specified cloth. Since it requires about three-fourths of a man-hour per yard for manufacture, the costs to produce this cloth in various countries was cited. Summed up, the figures showed that it would cost 82 cents less to make the specified amount of cloth in Britain, 86 cents less in France, 98 cents less in Italy and $1.10 less in Japan.

The rapid increase in wool yarn imports is also emphasized in the booklet. Pictorial charts showed the total yarn imports at 2,400,000 pounds in 1956. To indicate the trend it showed that no wool yarn was imported from Japan in 1951, whereas in 1956, 1,000,000 pounds were imported from that country.

In closing, the booklet asks that the "government adopt meaures that assure fair competition for American-made wool textiles in the American market."

John P. Stevens Jr., chairman of J. P. Stevens & Co. Inc., was elected president of the association to succeed T. B. Nilsen, president of the Clinton Woolen Co., who was named a director. Five vice-presidents were also elected. They are S. Ainsworth Hird, Samuel Hird & Sons Inc., Garfield, N. J.; Carey R. Kinney, Elmvale Worsted Co., Pittsfield, Mass.; E. P. LeVeen Jr., Carleton Woolen Mills, Rochdale, Mass.; Ames Stevens, Ames Textile Corp., Lowell, Mass.; Frederick W. Tipper of New York, Cascade Woolen Mills, Oakland, Me. Glen F. Brown was renamed secretary-treasurer.

In addition to Mr. Nilsen, retiring president, 13 others were elected to three-year terms as directors: George Asnip, Excelsior Mills Inc., Pendleton, S. C.; John P. Baum, J. P. Stevens & Co. Inc., Milledgeville, Ga.; B. H. Bishop, Pendleton Woolen Mills, Portland, Ore.; H. King Cummings, Guilford (Me.) Woolen Mills; William T. Dewey, A. G. Dewey Co. Inc., Quechee, Vt.; John L. Hutcheson Jr., Peerless Woolen Mills, Rossville, Ga.; Ronald A. Mitchell, Cyril Johnson Woolen Co., Stafford Springs, Conn.; Harold J. Walter, Bachmann Uxbridge Worsted Corp., Uxbridge, Mass.; John H. Hughlett, J. P. Stevens & Co. Inc., New York; John S. Bransford, Springfield (Tenn.) Woolen Mills Co.; Charles B. Rockwell, The

Allendale Co., Centredale, R. I.; Arthur O. Wellman of Boston, Wellman Combing Co., Johnsonville, S. C.; and Morton H. Darman, The Top Co., Boston.

In a brief speech after his election, Mr. Stevens reaffirmed his faith in the industry and his belief that the future could be favorably influenced through associated effort. Mr. Stevens urged greater self-discipline in selling and merchandising practices of wool textile mills to speed the day when profitable operations would prove the rule rather than the exception.

"Greater awareness of the absolute necessity to fight for a larger share of the consumer dollar through improved promotion and merchandising effort" was stressed in a speech to the business session by retiring president, Mr. Nilsen. He said growth of the market for wool textiles was so slow that individual producers could grow only by taking business from one another. A logical solution to this dilemma, he said, "is research directed to opening entirely new major markets for wool textiles."

Highlight of the dinner which ended the annual meeting was the presentation of Golden Fleece awards to: Mrs. Elsie M. Murphy of New York, president of S. Stroock & Co. Inc., Newburgh, N. Y., woolen and specialty fabric manufacturer; Maj. Gen. Webster Anderson, executive director, military clothing and textile supply agency, Philadelphia (Pa.) Quartermaster Depot; Harry Riemer, editor, *Daily News Record*, New York; and Paul W. Williams, U. S. attorney for the Southern district of New York; and Willard W. Cole, chairman of the American Institute of Men's and Boys' Wear, and president of Henry C. Lytton Co..

N.F.T. Members Approve A.C.M.I. Merger

Members of The National Federation of Textiles Inc., meeting Thursday, April 25, at their headquarters in New York, adopted a resolution favoring a consolidation of the federation with The American Cotton Manufacturers Institute, following a similar action taken by the members of the latter association at their convention in Palm Beach, Fla., last month.

At the federation's meeting, presided over by President Andrew J. Sokol of J. P. Stevens & Co. Inc., authorization was given to the board of directors to take whatever action which might be necessary or expedient to effect such a consolidation. It is understood that the board will meet at

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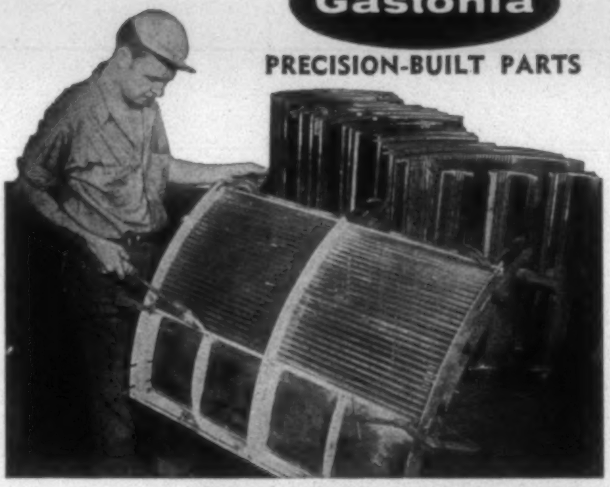

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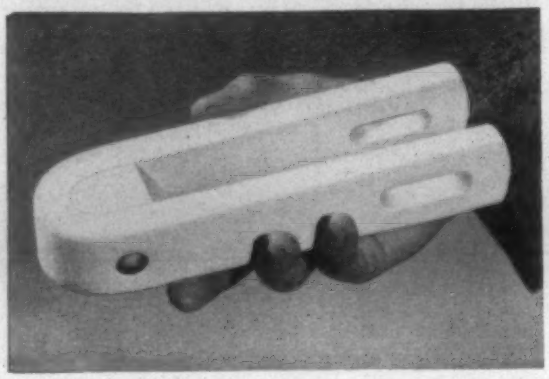

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an early date to discuss the framework necessary to bring about this important step in the long range objective of having a single organization to co-ordinate the co-operative activities of the two groups.

Poole Named To Head Texas Cotton Mfrs.

Dan H. Poole of Sherman (Tex.) Mfg. Co. has been elected president of the Texas Cotton Manufacturers Association. Other officers named at a recent meeting of the association in Dallas, Tex., include George Blackburn, Guadalupe Valley Cotton Mills, Cuero, Tex., vice-president; and Claude Mast, Brenham (Tex.) Cotton Mills, secretary-treasurer.

Guest speakers at the meeting included L. G. Hardman Jr., president of Harmony Grove Cotton Mills, Commerce, Ga., newly-elected president of the American Cotton Manufacturers Institute; Robert C. Jackson, A.C.M.I. executive vice-president; and F. Sadler Love, A.C.M.I. secretary.

A.A.T.C.C. Booklet On Careers in T. C.

The A.A.T.C.C. is going ahead with publication of a flyer and booklet aimed at interesting high school students in careers in textile chemistry. The national council appropriated $2,500 for preparation of the two items. The literature is expected to be ready for mailing soon. It is planned to have 50,000 copies of a flyer for general distribution prepared. Inquiries for further information would be supplied with a 16-page booklet giving more detailed information.

Market Research Conference, May 28-29

How can market research best be used to build bigger and stronger consumer markets for cotton and textiles in general? The answer to that question will be sought at a Textile Market Research Conference, sponsored by the National Cotton Council in New York, May 28-29.

In announcing the conference program, William Rhea

People Who Dress Well—Do Well

Robert T. Stevens

Robert T. Stevens, president of J. P. Stevens & Co. Inc., told the Greater Charlotte Textile Club early this month that there are many indications that the textile industry is getting to the point of a turning for the better. For one thing, he said, the national economy is moving upward, with the gross national product at a new high rate. Customers' inventories are low, and production has been curbed by liquidation and curtailment. Apparel sales are also improving at the consumer level, he pointed out, with more people putting more of their disposable income into apparel.

He described the present situation in the industry as a passing phase and reminded that the industry has weathered many such periods in the past.

As for better days, they can be quicker in coming, he said, with a little promotion on the part of the textile industry. "Sloppiness in dress," he said, "is too generally accepted in America today. . . . We can and should vigorously promote the entire textile industry by calling for a better dressed America. The public is long since ready for such a program." He suggested that such a program should adopt a slogan, and offered one himself: "People who dress well—do well."

Blake, the council's executive vice-president, said the two-day meeting will be in the nature of a "creative workshop" designed to explore opportunities for using marketing research in selling more textiles. "The time has come," Mr. Blake said, "when the best brainpower in the industry should be focused on developing answers about how to make consumers 'need' more textile products."

Mr. Blake pointed out that the prime interest of the council is to increase the consumption of cotton. Consequently, the council shares the concern of all fibers over the lagging growth of textile markets, the inroads being made by non-textile materials, and the technological changes and social trends which point toward less textile usage in the future rather than the necessary growth needed to maintain a healthy textile industry.

"The accent of the Textile Market Research Conference will be on stimulating interest and thinking from which concrete answers will emerge about whether textile markets can be expanded and if so, how. The nature of those answers, in turn, will provide the basis for future action by the cotton industry and by others concerned with expanding textile markets," Mr. Blake said.

Leaders from the textile trade, from other industries, and from government will present their views to the conference on how market research can be used as a tool for measuring market potentials and for pinpointing opportunities for textiles.

The keynote address will be delivered by the Hon. Walter Williams, Under Secretary of Commerce, who will evaluate the economic outlook for the U. S., and will discuss markets of the future. Case histories showing the direct application of market research techniques will be discussed by J. Emmet Judge, merchandising and product planning manager, Edsel Division, Ford Motor Co., and by E. M. Strauss Jr., manager, Commercial Research Division, Aluminum Co. of America.

Ways of adapting market research methods to textiles will be explored by W. E. Clark, vice-president and general manager, textile division, U. S. Rubber Co.; O. V. Wells, administrator, Agricultural Marketing Service, U. S. Department of Agriculture; and John Walsh, senior associate, Arthur D. Little Inc., consulting firm.

"The Psychology of Consumer Acceptance" will be the subject of a talk by Dilman M. K. Smith, vice-president, Opinion Research Corp., and president of Princeton Research Park. Harry C. Mills, vice-president in charge of the merchandise department, J. C. Penney Co., will speak at a luncheon session on "The Challenge—How to Sell More Textiles." The market research program of the raw cotton industry, which is conducted by the National Cotton Council, will be explained in detail by Frank McCord, market research director, and M. K. Horne Jr., the council's chief economist.

The conference will conclude with an open discussion period which will provide the opportunity for textile leaders to present ideas on how markets for their products can be strengthened and expanded. General conference chairman will be F. E. Grier, president, Abney Mills. Session chairmen will be: C. A. Cannon, president, Cannon Mills; J. Marshall Cole, president, National Association of Fin-

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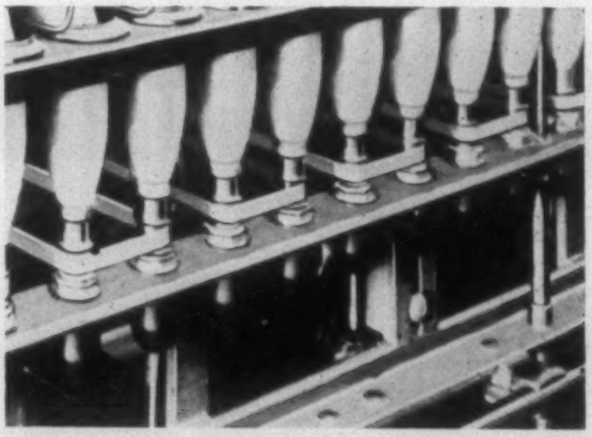

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Campbell, Taylor To Receive Honorary Degrees

Two distinguished, world-traveled former professors of textiles at Clemson College will be honored at the school's commencement ceremonies June 2. Honorary Doctor of Textile degrees will be conferred upon Dr. Malcolm Eugene Campbell, dean, North Carolina State College School of Textiles, and Fred Taylor, retired agricultural commissioner for the State Department.

Dr. Campbell, a graduate of the New Bedford Textile Institute in 1922, joined Clemson in 1923 as an instructor and became an assistant professor in 1925. He received a B. S. in textile engineering from Clemson in 1930. In 1926 he entered cotton fiber and spinning research work for the U.S.D.A., where he served until 1943 as senior cotton technologist in charge of fiber and spinning laboratories in South Carolina, Mississippi, Texas and Washington, D. C. During this period he completed 11 foreign assignments in 15 countries in Europe, Asia and South America. He served as a member of the Technical Industrial Intelligence Committee in Germany and England during 1945 and was chairman of the U. S. Textile Deans Group in England during 1949.

In South America he served as an advisor to the Brazilian government on research and education in 1950, and assisted in the establishment of the textile education program at the Peru National University in 1955. At the request of the president of Turkey last year, he became consultant to the textile industry of that country. He was formerly a consultant to the Pakistan Institute of Cotton Research and Technology.

Dr. Campbell was appointed dean of the School of Textiles at North Carolina State College in 1943. He is a former chairman of the raw cotton committee, American Society for Testing Materials, and a former president of the National Council of Textile Education (1946). He has appointments to the Cotton Utilization Research Panel, U.S.D.A.; the National Academy of Sciences and National Research Council; and is listed in *Who's Who in America, American Men of Science, Who's Who in Education* and *World Biography.*

Mr. Taylor, who returned to Clemson following retirement from 40 years federal service in 1948, is also a graduate of New Bedford Textile School. He taught there for six years and at Clemson from 1908 to 1912, when he joined the U.S.D.A. as a cotton technologist. Under his direction, the U. S. developed the Universal Standards for grade and staple of American cotton throughout the world. He gained wartime prominence in 1917 by designing the first successful cotton fabric for airplane wings. This "impossible" discovery offset a drain on resources, which threatened the nation when increased plane production was imperative.

Mr. Taylor interrupted his government career in 1919 to become cotton department manager for Firestone Tire & Rubber in Akron, Ohio, and later general manager at Fall River, Mass. He returned to Washington in 1930 to serve as agricultural commissioner for the State Department in Japan and China (1930-35) and in 15 European countries (1935-39). In 1940 he was named to the War Industries Board to supervise allocation of American cotton on war contracts. Cotton marketing duties took him back to Europe in 1944 and 1947 and to Asia in 1946.

Last year, Mr. Taylor and Dr. Campbell received honorary Master of Science degrees simultaneously at New Bedford Textile Institute. Dr. Campbell also received the Doctor of Textiles degree from the Philadelphia Textile Institute last June.

Milliken Offers College Fund Matching Plan

Roger Milliken, president of Deering, Milliken, has opened his second fund-matching offer to alumni of Wofford College, Spartanburg, S. C. Mr. Milliken's first offer was to give $1,000 for every percentage point by which the total of contributing alumni was increased. Alumni of the school responded with contributions totaling $53,772 and a new record of 74.4 per cent contributing. Mr. Milliken contributed $62,000.

This year he has given alumni until Dec. 31 to take advantage of his second offer. When the percentage of alumni who contribute reaches 40 per cent, he will give $10,000. For every percentage point above 40, he will give another $1,000, and for every dollar above $53,772, he has pledged to contribute $2.

National Starch Scholarship

National Starch Products Inc. has announced the establishment of the Alfred A. Halden Memorial Scholarship which has the stated purpose of assistance to senior high school teachers in completing further studies and to make them more proficient teachers. The scholarship is open to all teachers in the Plainfield, N. J., High School. The company's research laboratories and one of its manufacturing plants are located in Plainfield.

New Fibers From Tree Bark And Needles

Two chemists working in the field of silvichemistry reported last month the discovery of a new synthetic fiber based on the conversion of waste liquors from chemical cellulose production. Dr. Louis H. Bock and James K. Anderson of Rayonier Inc., chemical cellulose producer, told a meeting of the American Chemical Society at Miami, Fla., of their investigations into the complex realm of lignins, an essential wood component, that yielded new

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polyester fibers "somewhat similar to those currently being marketed."

Their report revealed that useful synthetic fibers could be obtained from lignin sources usually sloughed off in cellulose and paper pulp production or retained only to fire a mill's boilers. Thus new conservation gains might be expected as higher utilization of the entire tree becomes a possibility.

The scientists reported that the new polyester fibers are based upon vanillin converted to protocatechuic acid which also is obtainable from both the bark and the needles of the Western hemlock. Dr. Bock said that the new fibers revealed tensile strengths as high as 4.4 grams per denier and high melting points of 419° F., and they also displayed good dyeing properties and very low water absorption. He added that these new polyesters, as yet unnamed and still possessing some "bugs," may be considered to be in a stage of development similar to nylon's in the mid-1930s.

Vanillin, the first component in creating the fibers, comes from lignin wastes of chemical cellulose production. In cellulose production such as Rayonier's, one pound of lignin becomes available for each two pounds of cellulose—the basic raw material for over 500 consumer end-products; among them—rayon, acetate, cellophane, tire cord, film, sponges, several leading plastics. Thus a tremendous source of low-cost, replenishable chemical raw material is on tap, as Rayonier alone has a total lignin capacity approaching some one billion pounds a year at its eight plants in the U.S.A. and Canada . . . lignin for about 65,000,000 pounds of the new fiber a year. Rayonier as a basic raw material producer has no interest in producing the fiber, but might consider marketing the protocatechuic acid. Dr. Bock declared that if the fiber can be perfected, the world's textile industry might then have access to another continuous and easily replenishable source of low-cost raw material.

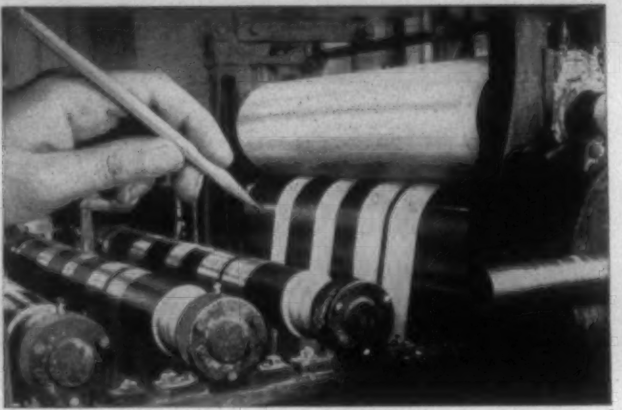
A.A.T.C.C. Activities

The Piedmont Section of the American Association of Textile Chemists and Colorists will hold its annual Summer outing at the Mayview Manor, Blowing Rock, N. C., June 7-9. The golf tourney will start on Friday afternoon. Winning scores will be determined by the Callaway handicapping system for both men and women. A special program has been arranged on Saturday morning for the ladies not participating in the golf tournament.

South Central Technical Session

Fredrich McKenna, research associate of the Institute of Textile Technology, was the chief speaker at the technical session of the South Central Section of the A.A.T.C.C. meeting in Chattanooga, Tenn., in early May. Mr. McKenna told the group that dyeing time and efficiency can be enhanced through the use of ultrasonics and that this type of treatment holds great promise for textile wet processing. J. C. Whitt, Standard-Coosa-Thatcher Co., was chairman of the meeting at which Mr. McKenna spoke on "The Use of Ultrasonics in Dyeing and Wet Processing."

George O. Linberg, who is the national president of the A.A.T.C.C., was the speaker at the banquet which followed the technical session. He told the group that the newly appointed archives committee has arranged for space at the Boston convention in November so that the various



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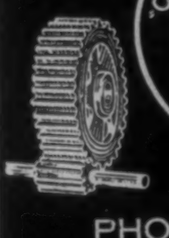

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sections might display some of their interesting and significant documents. Mr. Linbreg also reported that, "Today we are operating on an annual budget of one-quarter of a million dollars. Our association has arrived at the forefront as a spokesman for the textile chemicals and dyestuff industry." He warned the members, "We must keep pace with the fast-moving development of new synthetic fibers, new processes and new techniques to see that our test methods meet current needs."

Gold And Silver Dominate Metallic Yarns

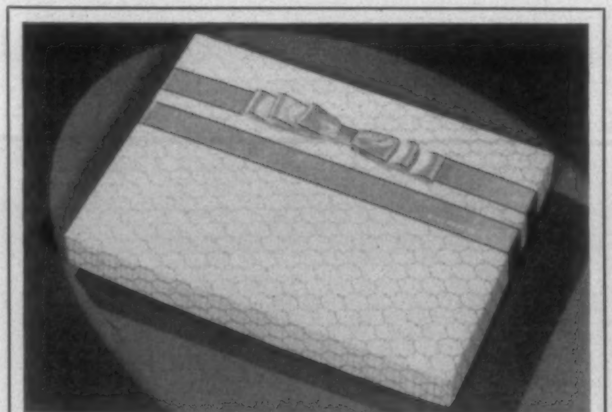
Metlon Corp. reports that a recent survey among domestic weavers, knitters and manufacturers about the use of color in metallics showed that more than 95 per cent of the consumption was in the two standard metallic colors, gold and silver. The balance, a little less than five per cent, represented all other colors, and even this small percentage was made up largely of the Christmas red, blue and green. A similar poll among department store buyers gave results which paralleled this opinion and further emphasized the importance of gold and silver.

An additional poll among the large number of foreign countries recently represented at the World Trade Fair at the New York Coliseum indicated that of the many who showed metallic-woven fabrics designed and produced in their countries, none used anything but gold and silver. No colored metallic yarns appeared in any of the fabrics at this international exhibit, verifying domestic reports. The consensus of foreign manufacturers agreed with the domestic conclusion that the only important demand was for gold and silver.

Among all who were questioned, there was a strong indication that gold and silver metallics have become a staple in textiles of all types and that the demand in these standard colors will continue to grow.

T.Q.C.A. Fall Meeting

The Fall meeting of the Textile Quality Control Association will be held at the Barringer Hotel in Charlotte, N. C. on Sept. 19 and 20. Technical sessions will be held Thursday afternoon and Friday morning of these dates. The



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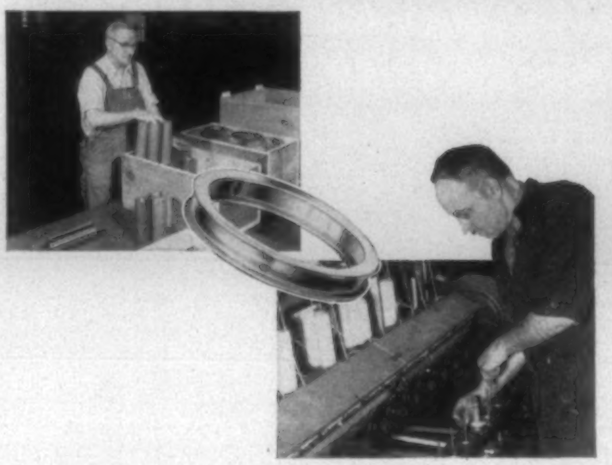

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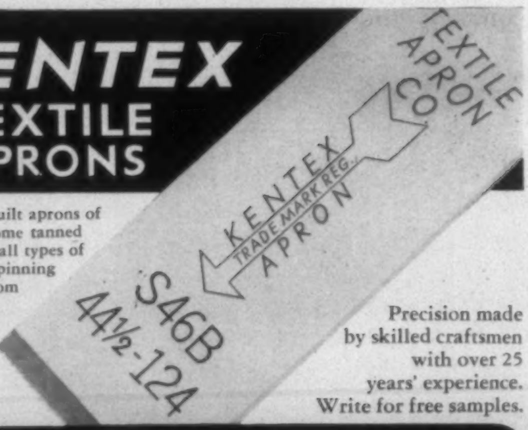

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association's banquet will be held Thursday evening. The program chairman for the meeting is William Esslinger of Orr Mills and his assistant program chairman is W. A. Thomason Jr. of Thomason Textile Service.

Chemstrand To Sponsor TV Series

Beginning in September, The Chemstrand Corp. will launch a top-flight, new situation comedy series starring Joan Caulfield and featuring Marion Lorne, titled "Sally," over the N.B.C. television network, 7:30 Sunday nights. According to Bernard F. Bertland, director of advertising, merchandising and promotion, the weekly show, now set for the prime Sunday night time spot, marks the most extensive use of national network programming yet undertaken to promote end-use textile products by a major fiber producer. The show is part of Chemstrand's continuing program of planned promotion for its products. The new series is expected to be especially effective in promoting such home furnishings as Acrilan carpets and blankets. The show will have a 92.5 per cent coverage of all TV homes in the U. S. Thus Chemstrand products can be seen in over 36,350,000 homes every week.

No Tests Seen On State Sign Laws

An official of the Justice Department has said no court action is expected to be taken against state laws aimed at Japanese textiles since there is little evidence of compliance or enforcement of the statutes. Several Southern states passed laws last year requiring retailers offering Japanese textile products for sale to display signs prominently to the effect that the goods were imported from Japan.

The same official, however, emphasized that the Justice Department would continue its "watch and wait" attitude, and he indicated that appropriate action would be taken should anybody be hurt and something could be gained by filing a suit against the laws. He said he thought there was little doubt that the laws would be ruled unconstitutional should they ever be tested.

Graduate Research Projects Up At Clemson

Seven projects, as many as the combined number in all previous years, are being completed this Spring in the graduate research program of the Clemson College School of Textiles. This is viewed by the department of textile chemistry, which conducts the research, as an indication of growing interest in the increasingly complex field. New fibers, new dyeing and finishing techniques give impetus to the value of continuing research.

Clemson awards the Master of Science degree in textile chemistry, and is unusual in offering an undergraduate thesis requirement. The undergraduate plan serves as an introduction to the fundamentals of research procedure for textile chemistry students planning graduate school work.

Currently, leading project research involves a method for improving strength, anti-shrinkage and dyeing in wool by a new-type molecular cross-linking; a new series of modified starches for use as permanent finishes, and new properties in starch and cellulose from a unique epoxide-type secretion. Studies are being made of practical effects of a new silicone compound on cotton and wool; light on a resin-pigment treated fabric, and cellulose with various vinyl compound, in developing a modified cellulose.

National Safety Awards

The National Safety Council has announced the winners in the national safety contest held for 1956. Twenty-eight of the 218 firms participating in the contest had perfect records. The participants represented a total of 453,128,000 man-hours of work.

The Division I Group A winner was The B. F. Goodrich Co.'s Martha Mills of Silvertown, Ga. Martha Mills had a perfect record for the 12 month contest. Second and third place were taken by Tallassee (Ala.) Mills with a frequency rate of 0.24 and Firestone Textiles Inc. of Gastonia, N. C., with a rate of 1.03, respectively. The average rate for the entire group was 6.18.

The Division II Group A winner was The Chemstrand Corp., Pensacola, Fla., with a perfect record. The Clover (S. C.) Division of The American Thread Co. was runner-up and also had a perfect record. Greenwood Mills' Mathews Plant took third place in this group with a frequency rate of 0.28. The average rate for this group was 2.48.

The Du Pont Co.'s textile research laboratory took first place in the Division II Group B contest. Callaway Mills Co.'s Unity Plant took second place and Kendall Cotton Mills' Oakland Plant took third. All three of the organizations had perfect records. The average frequency rate for this group was 2.69. Ten of the 57 plants in this grouping had perfect records for the year.

The Firestone Tire & Rubber Co., Buenos Aires Plant; The Graniteville Co., Warren Division; and The Amerotron Corp.'s Louise Plant finished one, two and three, respectively, in the Division II Group C contest. All three of the plants had perfect records as did ten others of the 52 plant grouping. The average frequency rate for the entire group was 4.94.

The average frequency rate for all companies in the entire contest was 4.36. This represents an improvement of 29 per cent over last year's contest average.

Dow Chemical Announces College Aid Plan

A new matching grant program of aid to higher education has been announced by The Dow Chemical Co. Effective July 1, Dow will match its employees' contributions to educational institutions up to $100 a year per employee. In addition, the company announced that it will make approximately $300,000 in other funds available to education for the 1957-58 academic year as part of its continuing aid-to-education program.

Explaining the matching grant plan, Dr. Leland I. Doan, Dow president, said the company believes it "will tend to encourage increased individual support of the nation's colleges and universities." The program is open to all regular hourly and salaried employees of the company and its wholly-owned subsidiaries in the U. S. An employee need not have attended the institution he wishes to assist. Em-

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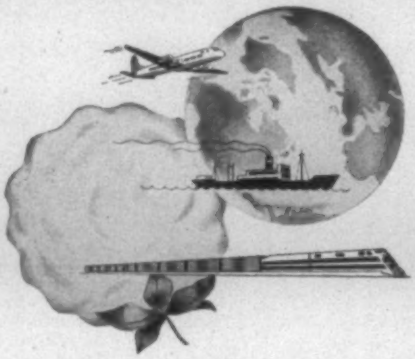

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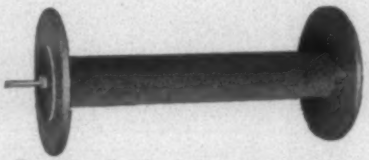

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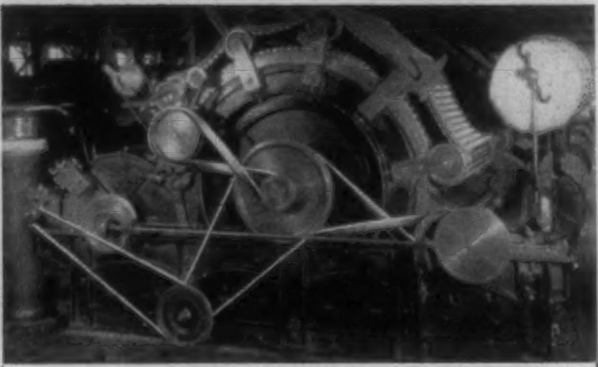

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ployees may make unrestricted gifts or they may specify the purpose for which their money is to be spent—such as endowments or funds for faculty and staff salary increases. Dow's matching grant is to be used for the same purpose as that designated by the employee.

Dow's over-all gifts to education in the 1957-58 academic year will include: (1) $167,150 in grants to 53 institutions for graduate fellowships and undergraduate scholarships and to two educational foundations for assistance to deserving students; and (2) $142,850 in grants to educational institutions and foundations, mainly for use in expansion and operating programs, and for other educational activities.

Besides these grants in aid the company expects to make another $300,000 available to colleges and universities during the next 12 months for specific research projects expected to be beneficial to Dow in the chemical field. This includes consultative research for the company by college faculty members.

Cotton And Synthetic Consumption

According to the latest release from the Bureau Of The Census, total U. S. cotton consumption for March 1957 was 690,627 bales. This represents a gain over February 1957 during which 648,366 bales were consumed but a drop from March 1956 which saw 916,176 bales used. The daily average consumption in the U. S. was 34,531 bales in March as against 34,218 bales in February 1957 and 36,647 bales in March 1956.

Total U. S. consumption of man-made fiber staple for month of March 1957 was 34,236 thousand pounds as opposed to 35,564 thousand pounds in February 1957. Both of these figures are way below the 42,378 thousand pounds which was consumed in March 1956, the release said.

In March 1957 there were 21,516 thousand cotton-system spindles in place and 19,985 thousand of them were active. February 1957 saw 21,537 thousand cotton-system spindles in place of which 20,161 thousand were active. There were 21,997 thousand cotton-system spindles in place in March 1956 and 20,888 thousand were active during the month, according to the Census Bureau release.

A preliminary estimate of the world cotton supply, in thousands of bales, in 1956-1957 is 62,500. The revised 1955-1956 estimate is 61,900 and for 1954-1955 is 59,200 thousands of bales. Of these totals the stocks on hand as of April 1 of each period is 1956-1957—23,700; 1955-1956—22,300; and 1954-1955—20,600 thousands of bales.

When William Sprague, grandson of the founder of Baltic Mills, Baltic, Conn., was wooing Miss Kate Chase, he said it not with flowers but with a mile of cotton cloth. When she came to visit, Sprague unrolled the cloth from the railroad station to his home so that she might walk on it. (P. S.—He won the girl.)

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Thomaston Mills —
Trust Co. of Georgia —
Turner & Chapman 115

—U—

U S Bobbin & Shuttle Co. —
U. S. Ring Traveler Co. 101
Universal Winding Co. 8
Uster Corp. —

—V—

Valentine Co., J. W. 113
Veeder-Root, Inc. 2
Victor Ring Traveler Co. 65

—W—

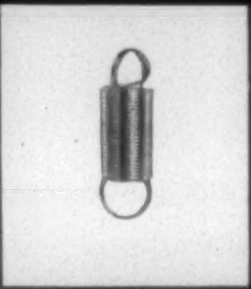
WAK Industries —
Walton & Lonberry —
Watson & Desmond —
Watson-Williams Mfg. Co. —
West Point Foundry & Machine Co. Back Cover
Westvaco Chlor-Alkali Div. 7
Whitin Machine Works 14 and 15
Whitinsville Spinning Ring Co. 111
Wood's Sons Co., T. B. —
Wolf & Co., Jacques —

—Y—

Yeomans Textile Machinery Co. —
Young Machine Co., F. A. —

You know those rare days when *everything's* right? Air smells good. Food tastes terrific. Even the old face looks good in the mirror. *Today* can be that kind of day. Just do two things. Call your doctor for a thorough medical checkup for cancer. Then write out a check—a nice fat one—to the American Cancer Society, and mail it to "Cancer" in care of your local Post Office.

AMERICAN CANCER SOCIETY



Filling Feeler Spring
for the "Midget" feeler. Double loop on each end provides *longer life*. Three tensions: light, medium, heavy.

Thread Cutter Springs (below)
of .067" tempered steel wire for *longer life*. In regular and cone types.

then there's LIVERMORE LEADERSHIP

the matter of SPRINGS

Each type of spring shown here has been PRECISION-ENGINEERED

to perform a particular function in loom operation — and to perform that function *better* than it had ever been done before. Descriptions of the various springs indicate in what respects they have been modified, so you can easily see that these HFL Improved Springs, like all

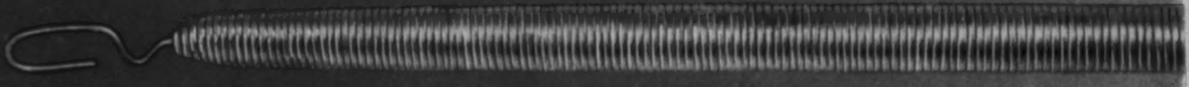
HFL IMPROVED LOOM PARTS

are better: because they are better engineered.

Long life is an intrinsic, built-in feature of these springs. It assures less down time, lower costs, more production, *better quality*.

Literature available on request.

Rubber Picker Stick Floor Spring has *longer life* than outmoded steel wire spring. Special rubber, not affected by oil, does not develop fatigue even at 160 picks per minute!



Dobby Pull-Down Spring equipped with swivel hook and eye of much heavier gauge wire than body of spring. This reduces breakage, guarantees *longer life*. Made for 10-pound, 14-pound, and 17½-pound capacities.

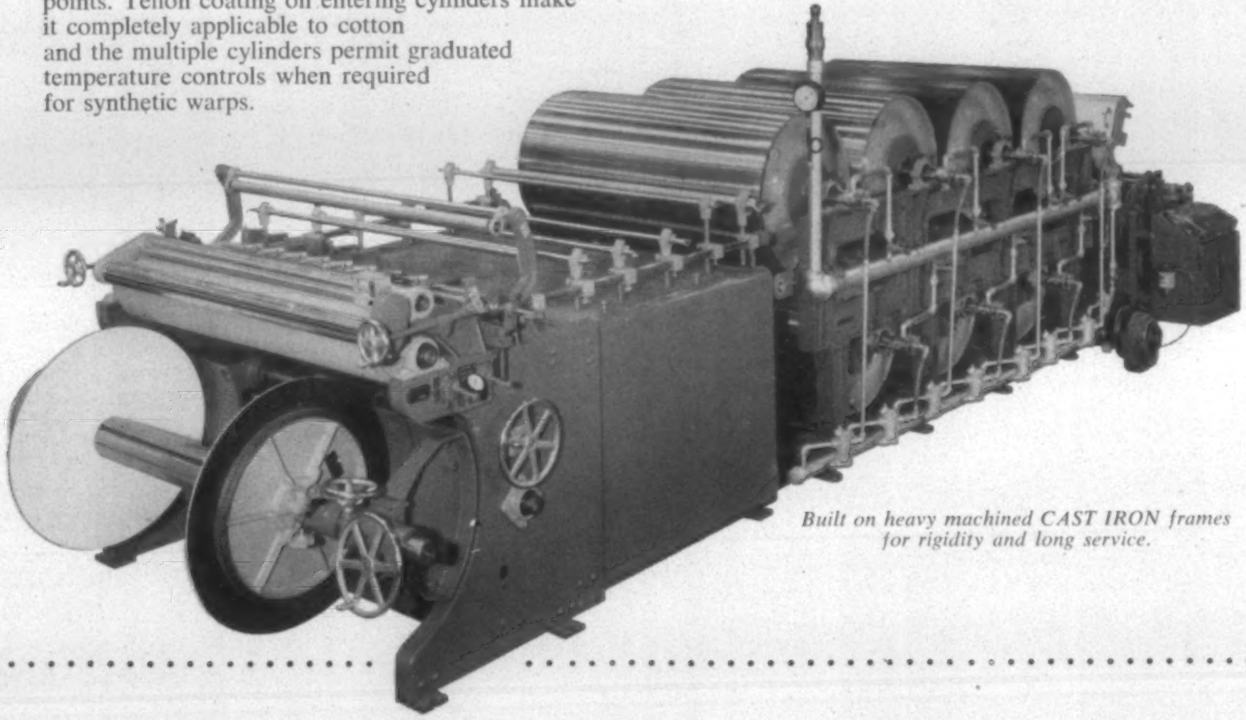
HFL
IMPROVED LOOM PARTS

H. F. LIVERMORE CORPORATION
ESTABLISHED 1887

EXECUTIVE OFFICES & PLANT
BOSTON 34, MASS.

SOUTHERN DIVISION
GREENVILLE, S. C.

MULTI-CYLINDER SLASHER—An extremely versatile high-production slasher doing an outstanding job wherever it is installed . . . on cotton, spun and filament synthetics. Superior control of tension throughout the slasher, year after year dependable high production, and steam economy are the MULTI-CYLINDER'S strong points. Teflon coating on entering cylinders make it completely applicable to cotton and the multiple cylinders permit graduated temperature controls when required for synthetic warps.



Built on heavy machined CAST IRON frames for rigidity and long service.

……

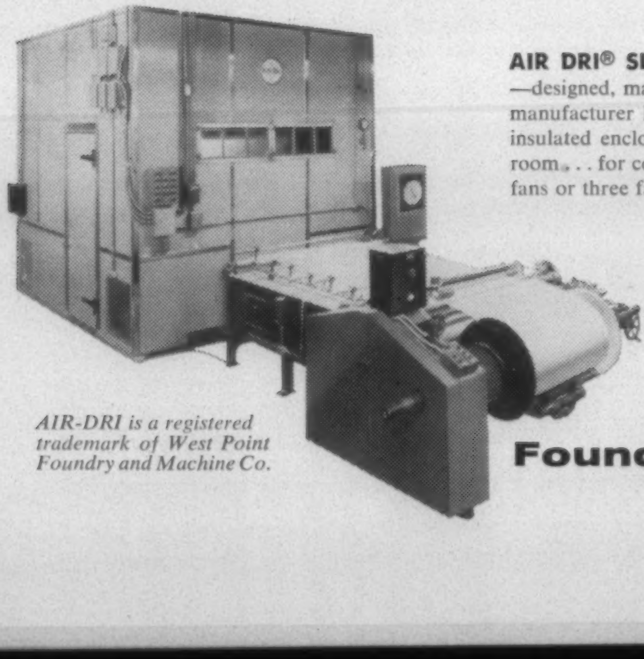
Your choice of Air-Dri® or Multi-Cylinder in

WEST POINT FOUNDRY SLASHERS

Yes, you have a choice with West Point Foundry, because West Point makes *both* MULTI-CYLINDER and AIR-DRI Slashers. And *both* are high producers . . . quality producers. Whether it's a complete slasher installation or modernization of present equipment . . . call West Point Foundry . . . specialists in slashers. They offer you a choice!

……

AIR DRI® SLASHER—A modern hot air slasher second to none —designed, made *and serviced by* an experienced slasher manufacturer located conveniently in the Textile South. AIR-DRI's insulated enclosure provides a clean and comfortable slasher room . . . for cotton, worsted, and spun synthetic warps. Made with two fans or three fans . . . for either 54½" or 72" warps.



AIR-DRI is a registered trademark of West Point Foundry and Machine Co.

WEST POINT
Foundry & Machine Company
WEST POINT, GEORGIA